IV. FIELD INVESTIGATION

Given the research hypotheses discussed in Chapter II, data recovery field strategies and methods were formulated to attain the following goals:

1. to define discrete, datable occupation strata and refuse deposits, so as to recover datable artifacts so as to assign deposits to pre-industrial and industrial periods,

2. to recover datable artifact collections for land use and socio-economic studies,

3. to recover soil samples for testing of phosphate concentrations and soil pH in order to determine their relationship to the land use characteristics of the property under investigation,

4. to recover standard volume samples of deposits from selected strata to permit determination of artifact densities, and

5. to recover samples for flotation in order to obtain floral and small faunal specimens for hypotheses testing.

The selection of data recovery methods was also significantly influenced by pre-excavation assumptions regarding the nature of the urban archaeological record. In planning the fieldwork, it was necessary to assess the degree of preservation and integrity of archaeological deposits. Such assessments were based on historical knowledge of the project area, visual inspection of the area with emphasis given to identifying recent functions of properties, and the results of the location/identification study conducted by Mid-Atlantic Archaeological Research, Inc. (Thomas et al. 1980).

Until recently, the project area consisted largely of single family dwellings which had been altered to house lower income multiple family dwellings, interspersed with commercial and industrial properties. Single and multiple family occupation of a property typically results in archaeological formation processes consisting of moderate refuse deposition, which in turn provides increased protection to underlying strata (Staski 1981:8). Beginning in the mid-1960s, this land use pattern changed with the onset of urban renewal and related highway construction. All structures within the project area were razed, the cellar holes filled, and the surface graded and/or filled. It was assumed that such demolition activities must have adversely impacted archaeological deposits in many cases, but the degree of impact was unknown prior to the fieldwork. It was concluded that intact archaeological deposits had the best chance for survival in the open yards behind once extant buildings. In addition, the location/identification study indicated that refuse-filled features, such as privies and cisterns, survived along the rear and side property lines in much of the project area.

General Field Strategy

The field investigations were divided into two phases. Phase I was designed to (a) provide information for assessing the actual archaeological potential

of the properties which had been chosen for excavation and for choosing alternates if necessary, and (b) provide distributional data on features and artifact deposits across the project blocks. This was to have been accomplished with a handturned bucket auger. Samples were to be taken at ten-foot intervals along parallel transects within each block. The auger tests were to be excavated to subsoil, but because the project area was covered by demolition debris, most tests did not penetrate deeper than approximately 0.5 foot. It became clear as a result of these attempts that the auger testing procedure would have to be re-evaluated. Only one of the four proposed auger test transects was placed in Area A (Orange to Tatnall Streets). Attempts were also made to place auger transects on adjoining blocks in order to evaluate the extent of this problem. Because demolition rubble prevented auger penetration, the following three alternatives to auger sampling were considered:

1. the substitution of small test excavation units for the auger tests,

2. the substitution of backhoe trenches, with samples taken from the trench profiles at set intervals,

3. the abandonment of attempts to gather distributional information.

The first alternative would have enabled the recovery of data comparable to that expected from the auger sampling, but was determined not to be time or cost effective. The second alternative would also provide data comparable to the auger tests, and would not result in any substantial increase in labor time. It would, however, be necessary to obtain a backhoe and operator, thus incurring additional project costs. The third alternative would have reduced the fieldwork and analysis for each block by approximately six man/days, but the data necessary for a distributional study would not have been recovered. Based on this evaluation, the second alternative was selected by the Delaware Department of Transportation, and approved by the Delaware Bureau of Archaeology and Historic Preservation. Upon excavation of a backhoe trench, a standard volume sample (five liters) was taken at ten-foot intervals from occupation levels or features exposed in the trench walls. Profile drawings were made of at least one wall of each trench, and photographs were taken.

Phase II involved the intensive excavation of specific properties, which were selected using criteria presented in the research design. The data recovery strategy was oriented toward locating, sampling, and excavating de facto, primary, and secondary refuse deposits attributable to activities which had taken place on the specific property under investigation. Displaced refuse contexts were not as intensively investigated as these latter three refuse types.

These distinctions in refuse types were made due to the variable analytical value of different refuse deposits. Discussions by Schiffer (1972) and South (1977) clearly point out the significance of identifying refuse contexts for any archaeological interpretation, and need not be discussed here. These distinctions also allow identification of those depositional contexts that have the most analytical value; a necessity in a tightly budgeted mitigation program.

Defined here, de facto refuse includes (a) artifacts deposited in their original use location (South's in situ refuse), such as objects resting on the floor of a burned building (South 1977:50); and (b) objects accidentally lost during use (South's primary de facto refuse). Primary and secondary refuse definitions follow Schiffer (1972). Primary refuse refers to materials deposited at location of use while secondary refuse is simply primary refuse that has been removed from its use location and redeposited in another locale.

The identification of displaced refuse is critical when undertaking an urban archaeological investigation. Displaced refuse is defined, following South (1977), as primary or secondary refuse that has been culturally or naturally redeposited to a new location. Rural historic sites differ from urban historic sites in a number of ways, but perhaps the most obvious difference is intensity of land use. Urban historic sites tend to be restricted to relatively small, well bounded lots, and a great deal of effort is normally expended on those lots to make them more habitable through time. This means that irregularities in the terrain tend to be either cut or filled, with both cutting and filling evident within some lots. The terrain modifications that occur on almost all urban lots often are accomplished with imported fill material if filling is conducted. Therefore, artifacts found in that fill did not necessarily come from within the household of the lot occupants, and such artifacts may not be attributed to specific individuals or households. Since the artifacts in obvious fill levels are often of suspicious origin, most such levels are classified as displaced refuse.

A second type of displaced refuse results from ground disturbances. Activities such as construction, original excavation of features, and vandalism can destroy the stratigraphy in a localized portion of a site and obscure the relationships of the artifacts contained in the disturbance. Since the stratigraphic relationships of such artifacts are often obscured, they are also placed in a displaced refuse category. It is generally recognized that at times it is difficult to distinguish between displaced refuse and other refuse contexts, but the delineation is a critical factor in analysis of urban historical sites.

In Wilmington, primary and secondary refuse deposits would be most likely to survive in existing rear yard areas. Cellar holes and foundations were not considered likely to contain such deposits, but would contain displaced refuse. Fill deposits, i.e. displaced refuse, were also not considered to hold analytical utility for addressing the research questions. For the most part, deposits interpreted as fill consisted of the mottled tan/red/grey Cretaceous clay which underlies much of the city. Although cultural material was often included in these deposits, the source of these artifacts could not be determined. These fill deposits served to level uneven or sloping ground surfaces, to raise low areas above the water table, and to provide a base for pavements. Such deposits were also sometimes found as a cap on refuse-filled features, such as privies and cisterns. Demolition rubble was another type of displaced refuse which was not considered to be analytically useful. Demolition rubble in the Wilmington Boulevard Project area dated to the last two to three decades and was, therefore, not of interest.

Excavation Strategy

The properties which were to be intensively investigated were excavated in either five-foot or ten-foot excavation units, depending on the configuration of the property studied. These excavation units were aligned in conformance to a standard grid which was imposed over the entire project area. The grid baseline, designated 0 N (zero north), was established along the approximate centerline of the construction right-of-way parallel to Front Street. It should be noted that the Wilmington street system is oriented approximately 45° east of north (Figure 23). For the sake of clarity, however, we will refer to Front Street, and to all grid lines paralleling Front Street, as running east and west. The cross-streets (and all grid lines perpendicular to Front Street) will be referred to as running north and south. This grid was tied into several established bench marks and datum points. Temporary datum stations were established on the east corner of Front Street and Shipley Street, and on the east corner of Front Street and Justison Street. The grid was also tied into a stone marker set into the railroad bridge abutment at Thorn Street and into a Coast and Geodetic Survey monument on Front Street approximately five blocks west of Justison Street.

Each excavation unit was excavated by hand and in natural levels. If a given natural level was more than 0.5 foot deep, it was divided into arbitrary 0.5 foot levels. Features were excavated as separate deposits. Although the recovery of architectural data was not a goal of the project, such remains were recorded when encountered. However, no alteration in excavation strategy was made to fully expose such architectural features in order to determine their function.

Features, such as wells, privies, cisterns, and building foundations, were recorded and photographed at the level where first encountered. Excavation of privies and cisterns was by hand shovel and trowel. Beginning at the level in which the feature was first identified, feature fill was removed by arbitrary (.05 foot levels) and natural levels to the bottom of the pit or to subsoil. Structural elements of cisterns or privies, such as brick walls, were exposed during removal of the fill, and were cleaned and then mapped in profile. More fragile structural elements, particularly the wood remnants of barrel privies, were removed during excavation. The relative position of the barrel sides and base were recorded by plan maps drawn at the bottom of every level. The consistency of privy and cistern fill varied considerably throughout the project area from a liquid state to hard-packed clay, and was apparently dependent on the depositional processes represented and groundwater levels. Most features had a stone or clay cap overlying a very moist, organic loam detritus fill. Fill deposits in features were dry-screened through 1/4 inch mesh. The wet nature of much of the excavated fill made this a difficult procedure and was better suited for water-screening. This latter method was not possible because of the absence of water sources in proximity to the project area.

Soil samples were taken from deposits identified in the field as occupation levels or features. A standard sample, consisting of five liters, was taken from each deposit within trenches. These samples, including artifacts within the sample, were placed in heavy plastic bags and the provenience recorded. Approximately eight ounces of each soil sample was separated in the

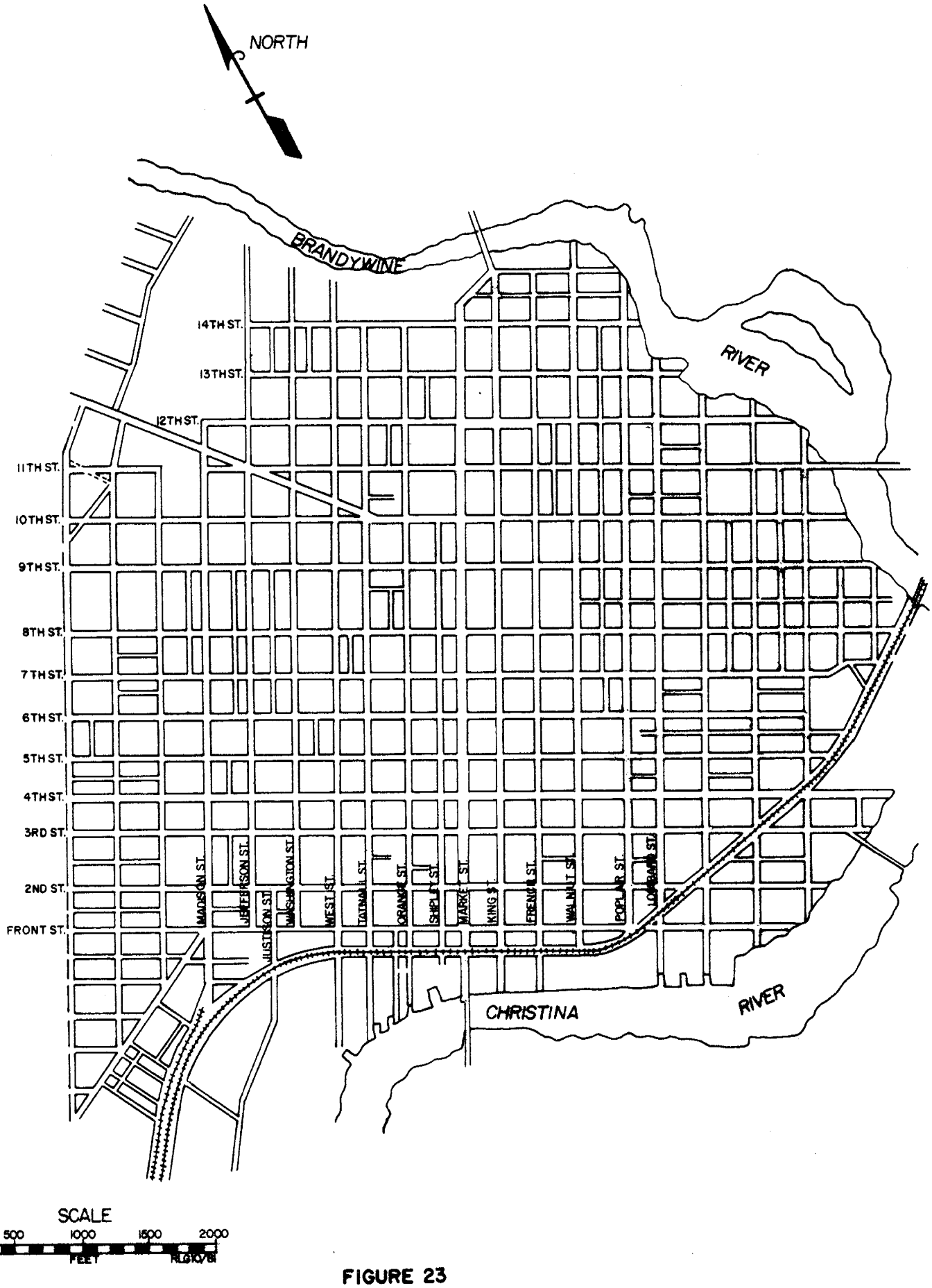


FIGURE 23

WILMINGTON
STREET SYSTEM

laboratory, and sent to Walker Laboratories, Inc., Columbia, South Carolina and Shilstone Engineering Testing Laboratory, Inc., Houston, Texas for chemical testing of pH and phosphate content. Two laboratories were utilized because of sample volumes, and so that results could be cross-checked. The chemical test results were then incorporated into an analysis of property function. Discussion of the chemical testing, analyses, and interpretations are presented in the Analysis chapter. The remainder of each five liter soil sample was then air dried and floated. Flotation was done to separate the heavy fraction of cultural material and the light fraction of small artifacts - faunal and botanical specimens, from the soil matrix. This process provided light fraction faunal and floral specimens for analyses, and enabled the determination of artifact densities per standard volume of stratum.

Area A: Orange Street to Tatnall Street

The excavated lot within Area A was located at 205-207 West Front Street (Figure 24). The lot had been cleared of structures at the time of the excavation, and was devoid of any vegetation. The investigations centered on what had been the rear of the lot (Plate 1). The lot crossed a portion of what was a low knoll prior to development, and at the time of the investigation there was a perceptible slope from the relatively flat area to the rear of the lot down to the contemporary street level. Subsoil was visible along the northern and western edges of the excavation area, while much of the rear of the lot was covered by a thin layer of asphalt and thin concrete. A cobble pavement was visible on the surface in some areas where the asphalt and concrete had been removed.

Selection of the lot to be excavated within Area A followed recommendations presented in the MAAR (Thomas et al 1980) report. It was anticipated that excavation of the selected portion would provide artifact assemblages related to:

1. a late eighteenth century high and/or middle socio-economic level household;

2. an early nineteenth century commercial and residential occupation;

3. nineteenth century manufacturing establishments; and

4. a late nineteenth century commercial utilization.

Historical data collected by SSI did confirm that this projected sequence of occupations had existed on the lot.

The initial improvements on the block between Orange and Tatnall Streets probably occurred after 1727, when it was purchased by Andrew Justison. Justison built a house on the lot to the west of the investigated lot, and no further improvements were documented until 1783, when the study lot was purchased by John Milner. John Milner sold the then improved lot in 1797 to Major John Patten. Patten, a prominent statesman at the time of the purchase, probably used the house as a second residence for his visits to Wilmington, from 1797 to the early 1820s. After his death, around 1823, the

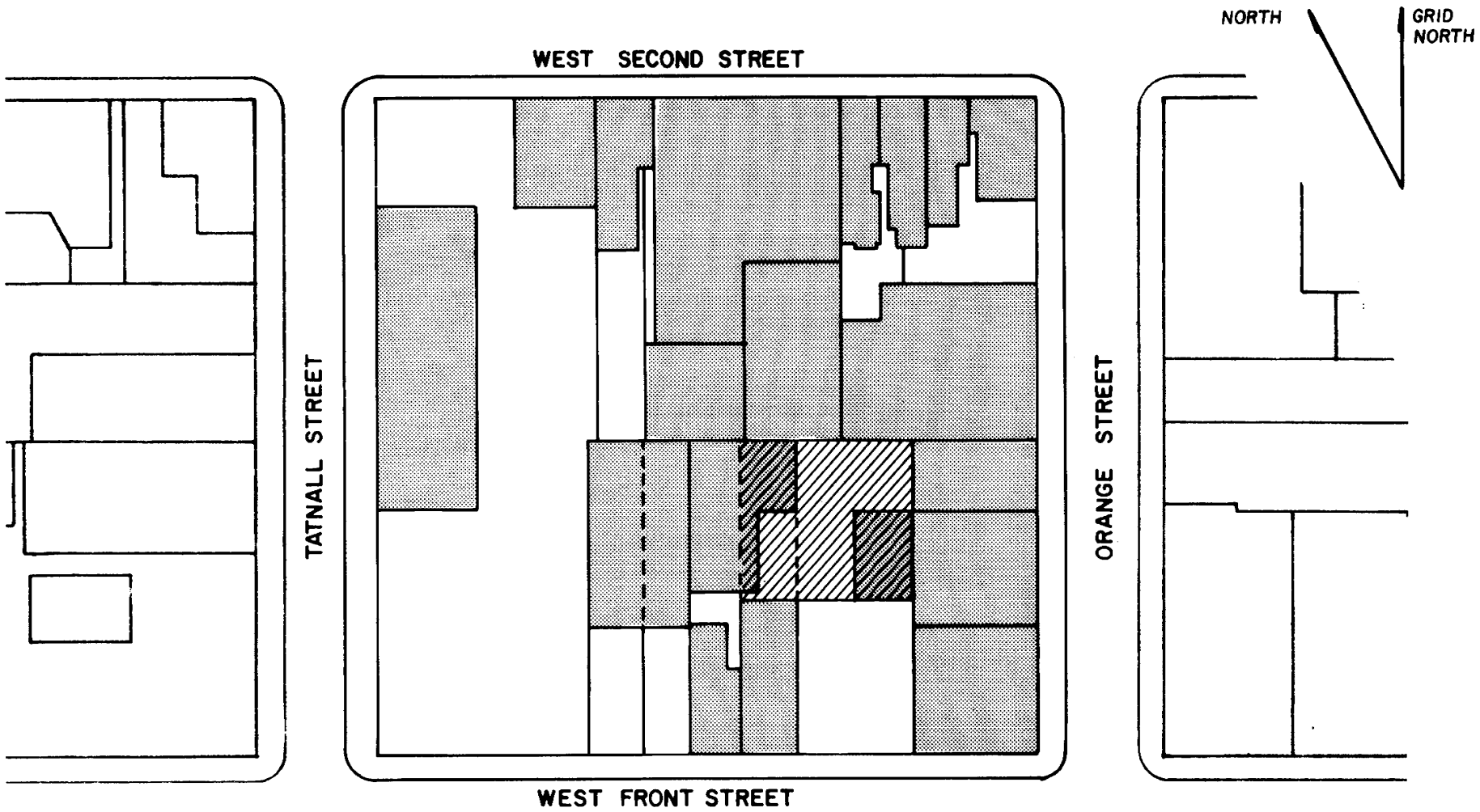


FIGURE 24
AREA A
STUDY LOTS

PLATE 1 - AREA A VIEW TO THE EAST

PLATE 2 - AREA A EXCAVATION UNIT 30N, 110W - NORTH PROFILE

property passed to his children. It appears that his children did not live on the lot, but probably retained it as rental property. Patten's son sold the property to his brother-in-law John Wales in 1823. The Wales may have lived on this lot in the early years of the nineteenth century. This lot at 205-207 West Front Street, thus, was probably occupied by high level socio-economic residences from its initial occupation through the first quarter of the nineteenth century. The remainder of the block, as indicated in the 1814 directory, contained a mixture of low, middle, and upper level socio-economic residences. Residents included small merchants and craftsmen such as coopers and bakers, as well as a ship captain, a clerk, and a farmer.

The character of the block appears to have changed somewhat by 1845 to low and middle level socio-economic households, as the block residents included blacksmiths, cordwainers, and laborers. Both commercial and residential properties were present on the block by that time. The study lot housed the Dowdall Bottling works from 1848 to 1852. Archaeological evidence indicates that Joseph Dowdall, the proprietor of the plant, lived on the lot at that time as well, or that the lot housed personnel employed by the plant.

The block assumed a commercial and small manufacturing character by 1884, and continued as such into the twentieth century. The study lot, with the John Milner House still standing, housed the Walton and Whann Fertilizer Company by 1873. The Grubb Lumber Company was established on the lot by the second quarter of the twentieth century, and continued to occupy the lot until the acquisition of the property by the Delaware Department of Transportation.

Data Recovery Strategy

Field investigation of Area A began on July 10, 1980, and was completed by September 1980. The excavation strategy for this area called for combined auger testing and intensive excavations. The auger testing was dropped after an initial attempt and replaced with backhoe testing, as discussed earlier. Testing and intensive excavation were conducted concurrently, with testing concentrated on the western portion of the block and intensive excavation restricted to the backyard at 205-207 West Front Street (Figure 25). The test profiles illustrated that features and occupations were absent outside of the intensive excavation area, negating the need for controlled collections from the test trenches.

Intensive excavation was initiated in one quadrant of the lot. Alternate ten foot squares were planned north of the 10 south and east of the 160 west grid lines (Figure 26), exposing sterile subsoil west of the 140 west line and cobble pavement in other areas. The initial results indicated that prior ground disturbance had removed archaeological deposits west of grid line 140 west, and attention was then shifted to the cobble pavement.

Study of the location/identification study data in the MAAR report indicated that the east end of the lot was covered by several feet of sterile clay fill above the original land surface. That information, coupled with the presence of the cobble pavement, led to the decision to use mechanical equipment to remove the cobble pavement and as much of the sterile fill as possible. The cobble pavement was removed by heavy equipment, but the presence of a barrel-lined privy and a trash deposit in the fill necessitated halting the

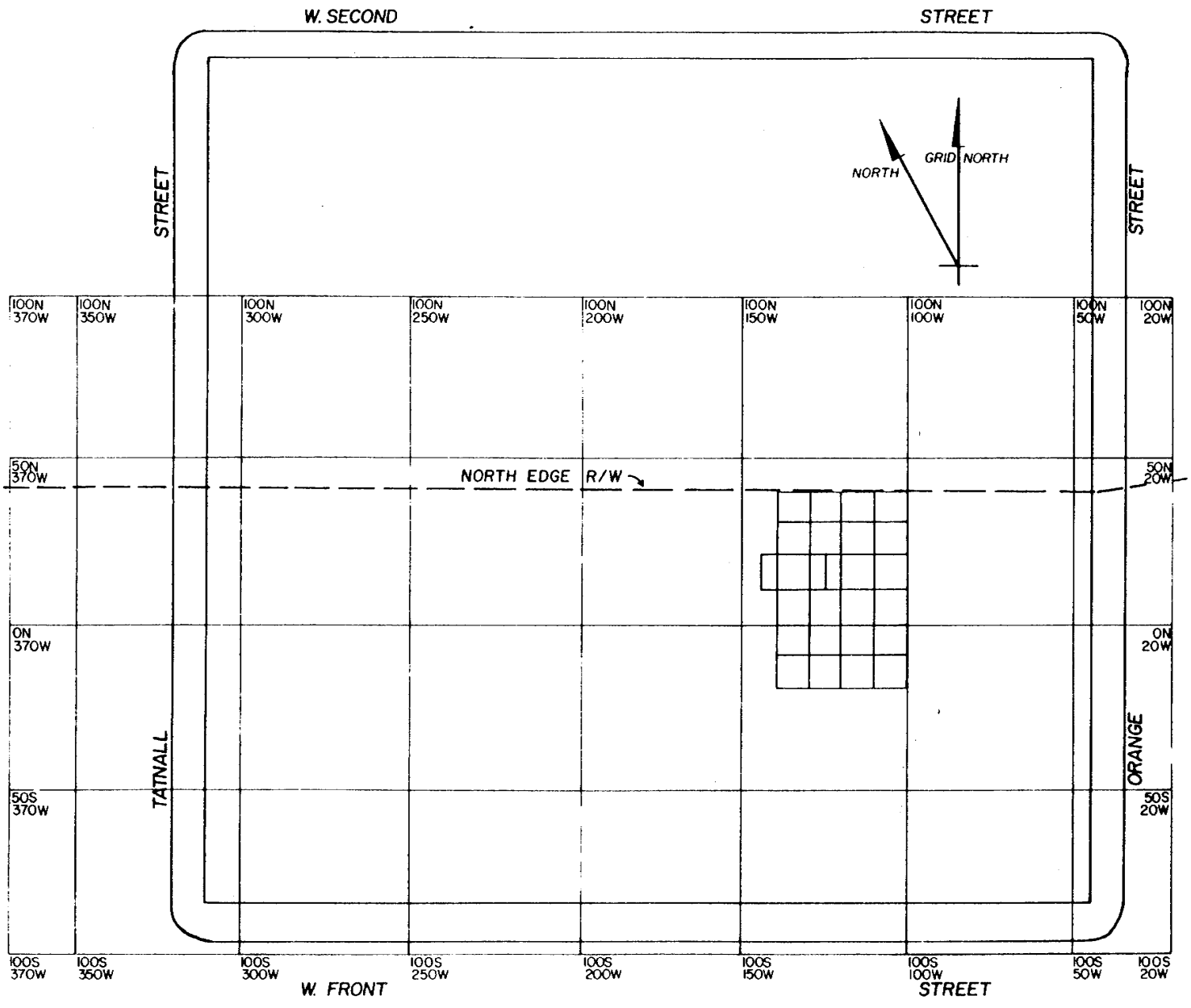


FIGURE 25
AREA A
INTENSIVE
EXCAVATION AREA

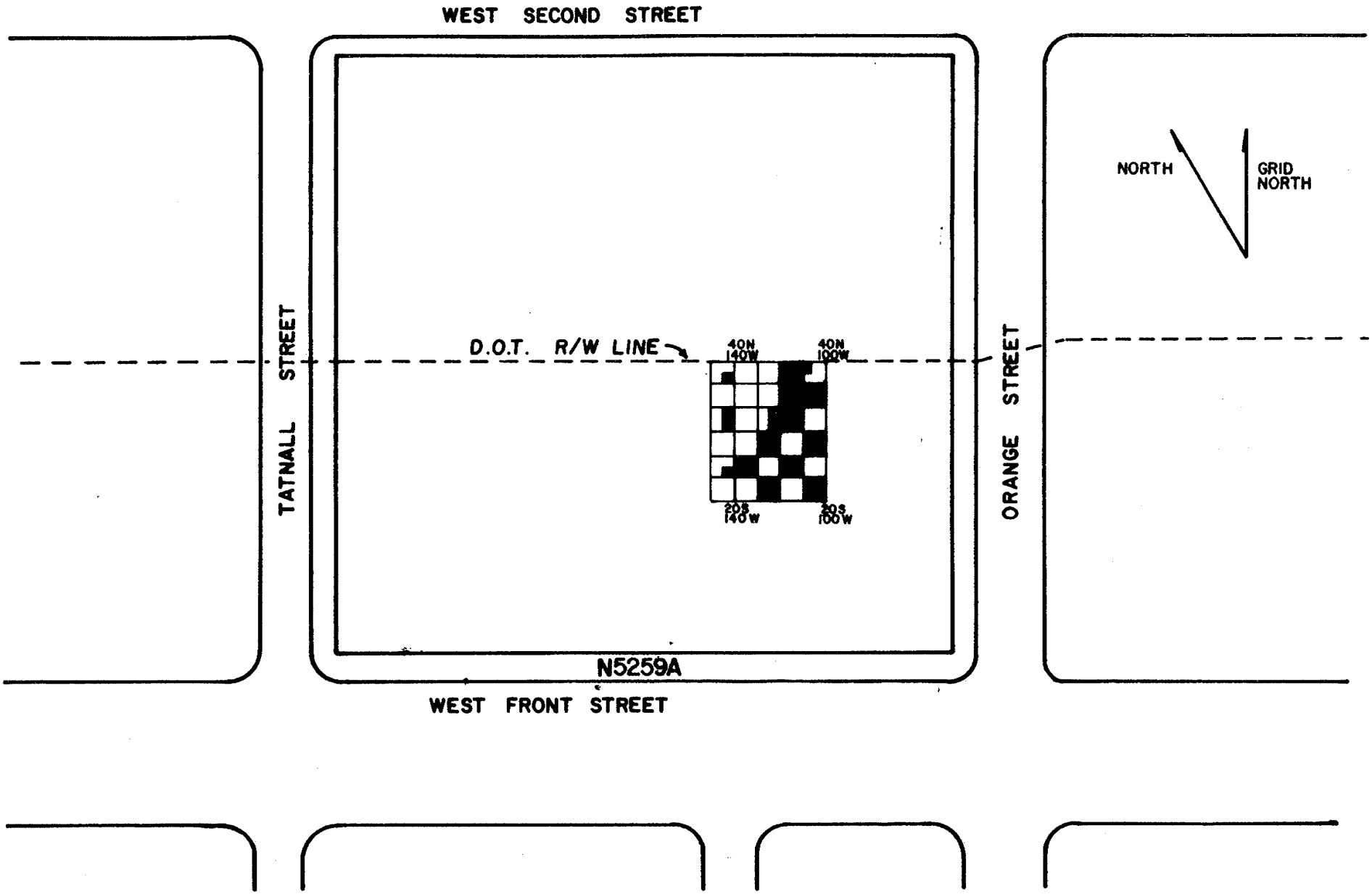


FIGURE 26
AREA A
EXCAVATION UNIT LOCATIONS

stripping operation. The exposed area was shovel shaved, and the control grid was re-established. Alternate ten foot squares were then excavated in a checkerboard pattern to provide extensive areal coverage without complete excavation (Figure 26).

Intensive excavation revealed a variety of deposits and features (Plate 2) (Figure 27) dating from the early to mid-nineteenth century, with one feature dating to the early twentieth century.

Archaeological deposits were found that could be linked to a high status household. In addition, there were deposits associated with middle level socio-economic residential/commercial establishments.

Fifteen archaeological contexts were explored during the intensive excavation. Table 9 lists the contexts from lowest (stratigraphically) to highest and includes the Excavation Record (ER) numbers for each context.

The earliest deposit on the study lot appears to have been the original topsoil. The assumed topsoil layer was composed of homogeneous grey-brown soil that varied in thickness from 0.5 foot to 1.5 feet. That context probably includes the topsoil that was present on the lot at the time of its development in 1783, although it was increased through the addition of organic materials and artifacts following lot development. The topsoil level appears to have been relatively undisturbed as mean ceramic dates calculated for the arbitrary excavation levels of the topsoil indicate greatest age of deposit on the bottom of the stratum and least on the top.

Study of the depth of occurrence of the topsoil level through the excavation units indicate that the topography of the back section of the study lot was irregular prior to development. The ground surface appears to have sloped from a high point in excavation units 0 north/120 west and 10 north/120 west to a lower elevation in units 0 north/100 west and 20 north/100 west (Figure 27). The topography in this area is consistent with a 1736 map of Wilmington which shows a creek along the eastern side of the lot and parallel to Orange Street. Further, the mean ceramic dates for the higher and lower areas demonstrate that the higher area was either open to receive trash to a later point in time, or that different artifact discard mechanisms were in effect for the different sections. The topographically lower area yielded a mean ceramic date of 1810.47, while the topsoil in the higher area yielded an 1833.97 mean ceramic date. While a number of situations could account for the dating differential, it seems likely that the lower topographic setting simply became encapsulated by fill at an earlier date than the higher setting.

The Area A intensive excavations yielded two barrel privies that dated to the pre-industrial period. Both privies were found in the northern end of the area, and both were firmly identified by function based on the presence of layers of fecal material in each.

The privies were probably associated with the Patten occupation of this lot. Major Patten lived on this property during his visits to Wilmington, from 1797 to around the 1820s. His permanent place of residence was outside of

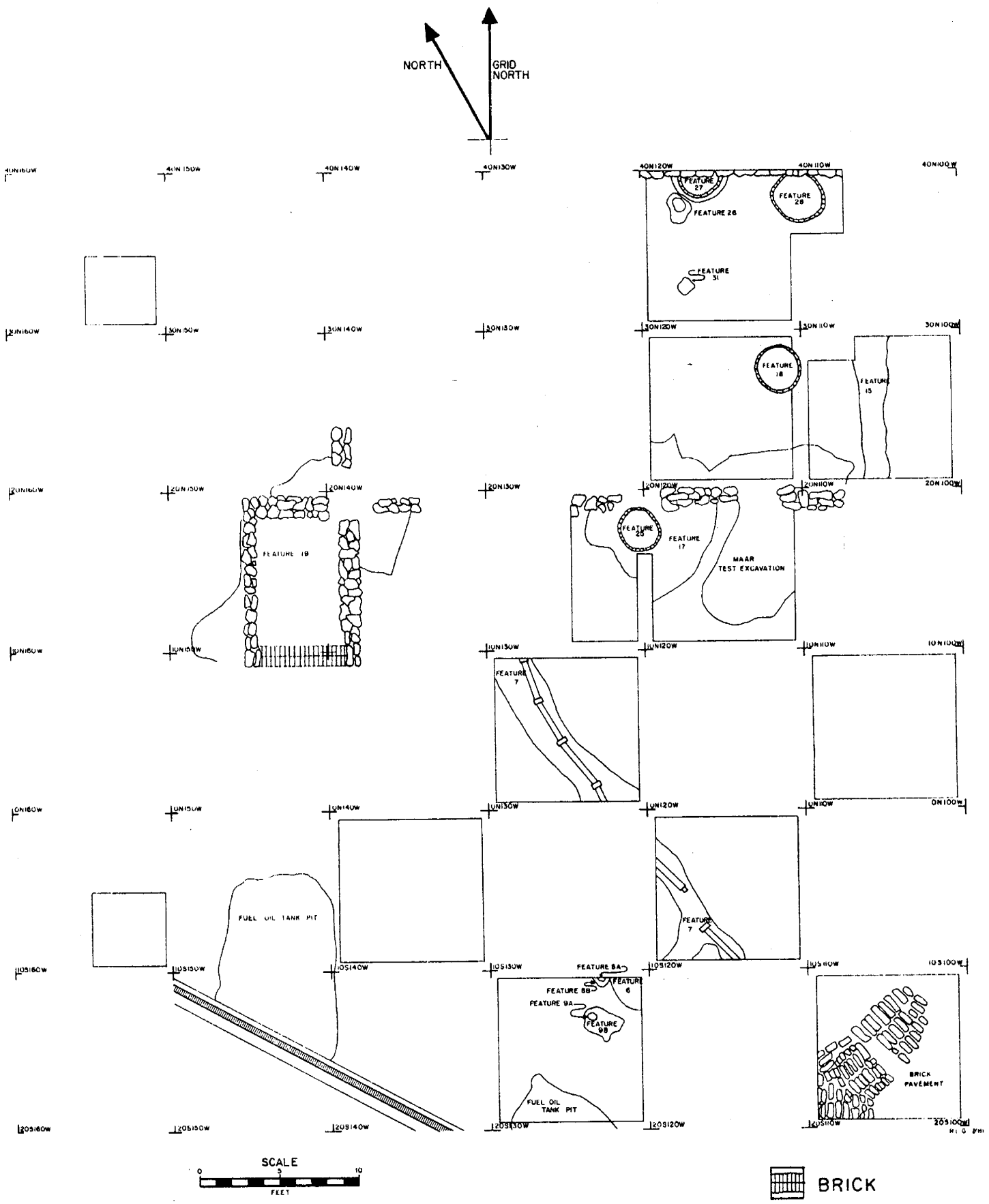


FIGURE 27
AREA A
EXCAVATION AREA
WITH FEATURE LOCATIONS

TABLE 9. Area A Deposit Summary; Lowest to Highest Deposit

ER Number	Description	Interpretation and Stratigraphic Data	Mean Ceramic Date
A7D, A9Z A10Z1, A10Z2 A10Z4 A11Z1, A11Z2 A12Z1, A12Z2 A13Z, A16Z1 A16Z2, A16Z3 A18Z1, A18Z2 A19Z2, A19Z3	grey-brown clay	original topsoil and original ground surface. Contains secondary refuse	1810.47 for lower area, 1833.97 for higher area
Feature No. 27 ERA48	barrel-lined privy	secondary refuse in fecal deposit (ERA48 F and G), capped by grey clay containing displaced refuse (A48A-E)	1811.5 for fecal material, 1804.17 for clay capping
Feature No. 28 ERA49	barrel-lined privy	secondary refuse in fecal deposit, with no capping	1815.09
Feature No. 15 ERA36	trench with dark brown loam and clay with shell and artifacts	trench of unknown original use, functioned as trash pit containing secondary refuse	1849.80
A19Z1	dark brown loam and clay with shell and artifacts	trash lense with secondary refuse associated with Feature No. 15	1849.05
Feature No. 25 ERA46	barrel-lined privy	secondary refuse in fecal deposit (ERA 46E), capped by level of ash, cinders, and displaced refuse (ERA46 A-D)	1851.82 for fecal deposit, 1848.68 for capping capping

TABLE 9. (continued)

ER Number	Description	Interpretation and Stratigraphic Data	Mean Ceramic Date
Feature No. 17 ERA38	grey-brown loam and clay with artifacts, including high bottle frequency	trash deposit with secondary refuse	1849.69
A16F, A18D A19G	tan clay, mottled grey to yellow clay	fill deposit brought into level area, caps all deposits listed above	no date
Feature No. 18 ERA39	barrel-lined privy	contained dark brown loam and grey clay with displaced refuse	1842.40
Feature No. 19 ERA40	brick and stone structure with horse manure, straw, and artifacts	barn related feature with secondary refuse	circa 1900
Feature No. 7 ERA28	trench with mottled orange, tan, and grey fill	pipe trench containing displaced refuse	Middle to Late 19th Century
Feature Nos. 6, 8a, 8b, 9a, 9b, 2G, 31	small, irregular features	identification unknown, possible natural features, or other anomalies	Middle to Late 19th Century
A15D, A16D, A16E, A16E2, A19A, A21E, A44E, A44B, A15C, A16C, A19E, A21D, A15A, A15B, A16A1, A16A2 A16B, A19A, A34, A9C, A9D, A11A, A13D, A13A, A13F	various deposits of clay with ash, shell, and brick rubble, including a deposit of iron slag in a brown loamy clay (ERA15A, A15B, A16A1, A16A2, A16B, A19A, and A34)	fill deposits with displaced refuse, stratigraphic sequence different in various excavation units, see Figures 28 and 29 for unit profiles	Middle to Late 19th Century
A9B	brick pavement	Belgian block walkway covering almost all deposits in Area A	Late 19th Century

the city. These two privies probably existed at the rear of the property, with the main house adjacent to the Front Street right-of-way.

Feature 27 proved to be the earlier of the two privies. That feature was approximately 2.33 feet wide by 1.67 feet deep, and contained two layers of mixed fecal matter and secondary refuse. The layers of fecal material were overlain by a stratum of grey clay which formed a mound in the center of the privy. That level was overlain in turn by light grey clay which capped the privy. The lower levels of the privy yielded a mean ceramic date of 1811.5, and although that date is suspect, as it is based on eight sherds, the validity of the date is supported through study of linked contexts. The grey clay, which overlaid the fecal levels, yielded a mean ceramic date of 1804.17, which could indicate slight error in dating the fecal layers, or that the grey clay was scraped up from an area that contained slightly older deposits. Validation of the dating for the fecal layers can be found through consideration of the mean ceramic dates achieved for associated arbitrary topsoil levels. The privy intrudes into a topsoil level that yielded a mean ceramic date of 1798.13, and originates within an arbitrary vertical division of the topsoil that yielded a mean ceramic date of 1801.5. The privy is overlain by an arbitrary topsoil layer that yielded a mean ceramic date of 1814.49. Those data are consistent with deposition of the fecal level at around the 1811.5 date indicated by the mean ceramic date.

The second privy from the pre-industrial period, Feature 28, measured three feet wide by 2.73 feet deep. Feature 28 was filled entirely with fecal material and secondary refuse, and lacked the capping fill generally found in such features. This privy post-dated Feature 27, as it yielded a mean ceramic date of 1815.09. The relationship between the two features was further clarified by the presence of an annular (dipped) creamware sherd in the top level of fill in Feature 27, which cross-mended with a mug recovered from within the fecal material in Feature 28. The mean ceramic dates of the fecal material in both features fall near the end of Patten's occupation of the property. These features, therefore, provide a collection from the pre-industrial period that is probably attributable to an upper level socio-economic household. The artifacts from these two privies will receive detailed treatment in the artifact analysis chapter to provide important data for addressing the project's research hypotheses.

The next group of deposits and features recovered from Area A date to the early period of industrialization in Wilmington. Those contexts yielded the largest collections of artifacts extracted from this area, and can be related to the period from 1848 to 1852, when the lot was occupied by Joseph Dowdall. Joseph Dowdall may have maintained his residence on the lot, or the lot may have housed an employee of the Dowdall Bottling Works. That interpretation is based on City Directories that place his establishment on the study lot, and the archaeological excavations that yielded extensive domestic debris in association with marked Dowdall bottles and items used in the production of mineral water.

Four numbered features were found that can be directly linked to the Dowdall occupation. Those features included a trash-filled trench (Feature 15), and associated trash lense (A 19Z1), a barrel privy (Feature 25) (Plate 2), and an associated trash deposit (Feature 17) (Figure 27). The trash-filled

trench (Feature 15) (Plate 3) was found in excavation unit 20 north/100 west, and presents some interpretive problems. The trench was filled with oyster shell, artifacts, and unconsolidated organic soil. This feature was not completely uncovered during the excavation, but auger tests indicated that it extended for only a short distance in both directions from the excavated section. The function of that trench could not be determined based on either the excavation or analysis data, but it may have been a footing trench that was never utilized for construction. There is no doubt that the trench became a trash dump that received both domestic debris and trash from the Dowdall Bottling Works. The trench deposits yielded a mean ceramic date of 1849.80, which is within the documented 1848-1852 occupation range for Joseph Dowdall.

The top of the original topsoil, 19Z1, proved to be a trash lense that was associated with the trash deposit in the trench. This trench deposit contained a heavy concentration of shell and artifacts, and analysis of the ceramics yielded a mean ceramic date of 1849.05. The deposits in Features 15 and A19Z1 were apparently sealed with fill soon after deposition of the trash, and it is evident that this feature and trash deposit contain debris associated only with the Dowdall occupation of 1848-1852.

Features 25 and 17 completed the list of features that were directly attributable to the Dowdall occupation. Feature 25 (Figure 27) was a single barrel privy that measured approximately three feet in diameter by four feet deep (Plate 4). The privy contained a thick stratum of fecal matter and secondary refuse, and analysis yielded a mean ceramic date of 1851.82. That date was near the documented date of 1852 which was the end of the Dowdall occupation. The stratum of fecal matter was overlain by a level of ash, cinders, and displaced refuse. The mean ceramic date for that level was 1848.68. The slight inversion in mean ceramic dates (3.14 years) may indicate that the privy was filled with material scraped from the trash lense that made up Feature 17. Feature 17 appears to have accumulated around the top of Feature 25 while the privy was in use, and part of that feature fill ended up over Feature 25 after abandonment and filling.

Feature 25 proved to be covered with the most elaborate cap found on the Wilmington Boulevard Project. Two large pieces of granite were placed directly over the privy, and a wall was constructed over the capping (Figure 28). Feature 17 appears to have been cut by the wall, and the wall thus probably postdates the Dowdall occupation.

Feature 17 was deposited along a fairly steep slope and covered the original topsoil level (Figure 29). The feature contained what appeared to be domestic debris from the Dowdall household, as well as large numbers of broken marked Dowdall mineral water bottles. Feature 17 yielded a mean ceramic date of 1849.69, which is within the documented Dowdall occupation. Also, Feature 17 can be firmly linked to Dowdall through the presence of marked Dowdall mineral water bottles.

It is apparent that Feature 25 remained in use as a privy through most, if not all, of the Dowdall occupation. Once the privy was abandoned, it was filled with debris scraped from the surface and capped with granite slabs. A wall was then built over the privy, and the trash lense designated Feature 17

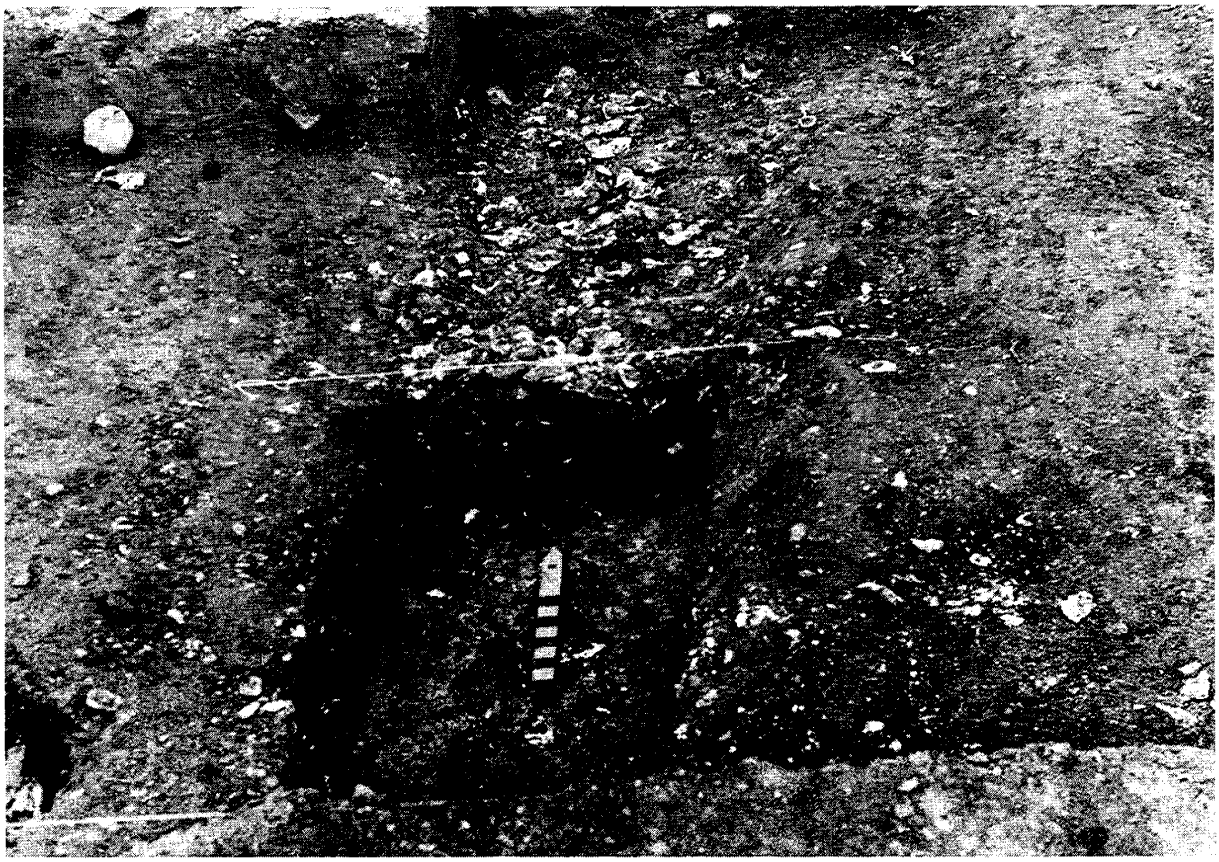
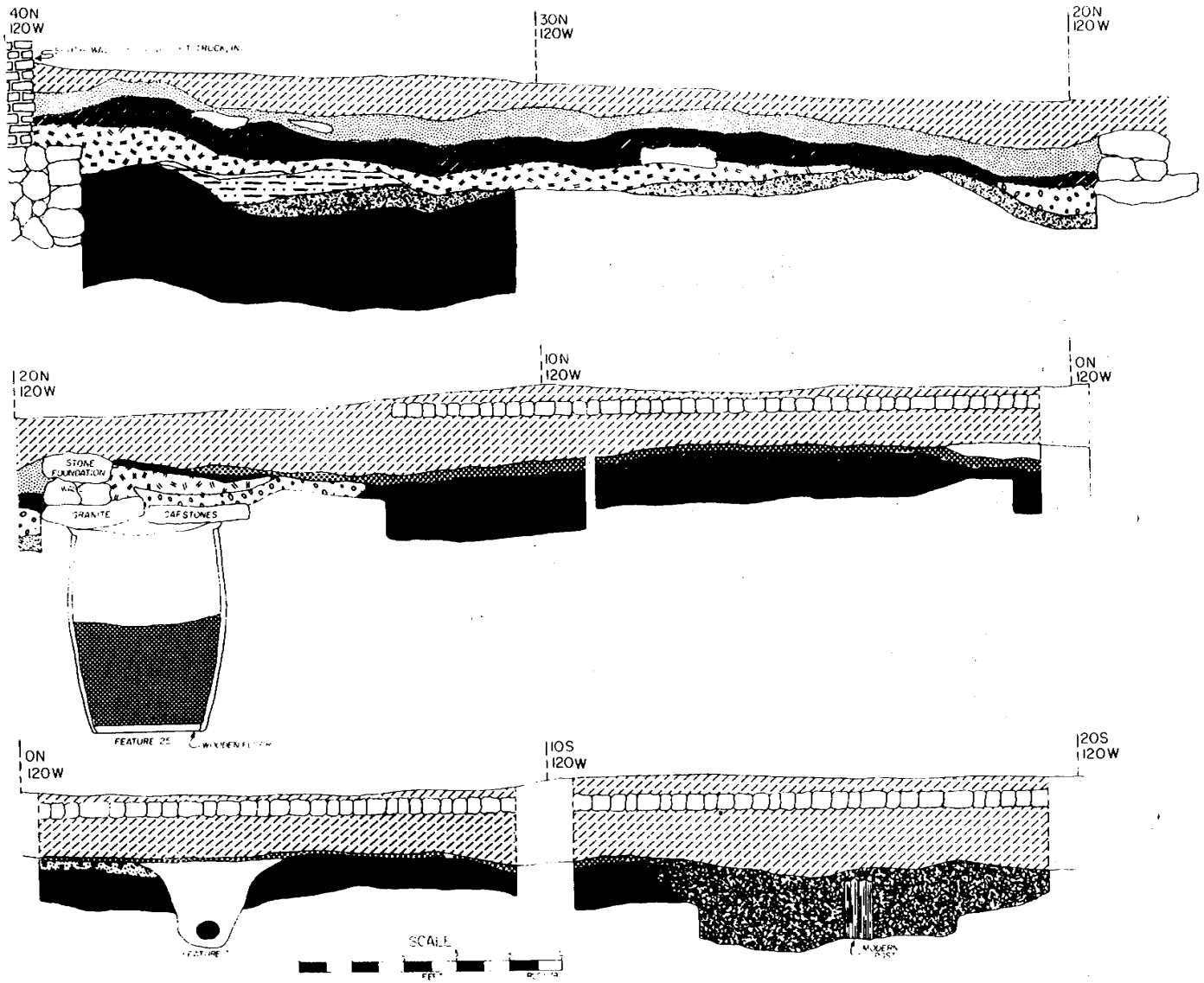


PLATE 3 - AREA A FEATURE NUMBER 15

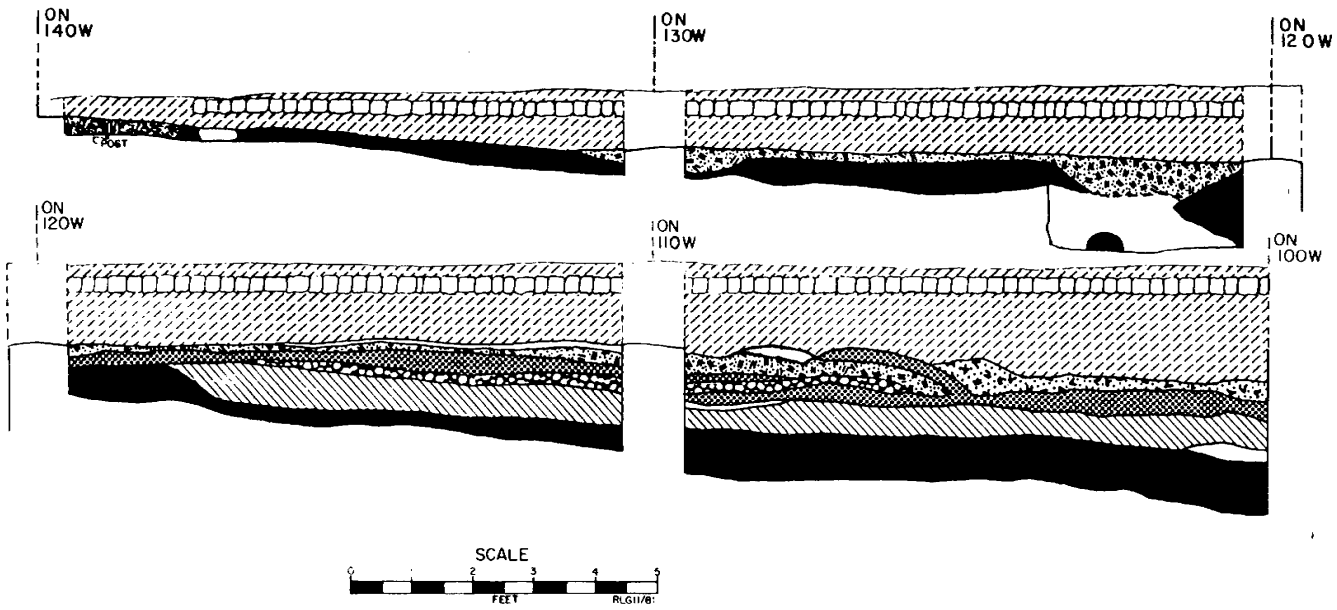
PLATE 4 - AREA A FEATURE NUMBER 25



LEGEND

- ORIGINAL GRADE, DISTURBED BY FUEL TANKS
- MECHANICALLY STRIPPED DEMOLITION FILL
- LIGHT GRAY SANDY CLAY
- DARK BROWN LOAMY CLAY WITH SLAG
- MOTTLED GRAY/YELLOW CLAY
- BELGIAN BLOCK PAVEMENT COVERED BY ASPHALT PAVING
- GRAY LOAMY CLAY WITH ASH & SHELL
- GRAY BROWN LOAM & CLAY WITH BOTTLE CONCENTRATION - FEATURE 17
- GRAY BROWN LOAM WITH ASH
- CINDERS & BLACK SANDY CLAY
- MOTTLED YELLOW CLAY
- GRAY CLAY OR GRAY BROWN CLAY - ORIGINAL GRADE
- DARK BROWN/BLACK ORGANIC - PRIVY FILL

FIGURE 28
AREA A
120 WEST LINE
EAST PROFILE



LEGEND

- MECHANICALLY STRIPPED DEMOLITION FILL
- BELGIAN BLOCK PAVEMENT COVERED BY ASPHALT PAVING
- MOTTLED YELLOW CLAY
- CINDERS & BLACK SANDY CLAY
- ASH
- YELLOW/TAN CLAY
- REDDISH BROWN CLAY
- RUST-YELLOW SAND
- GRAY CLAY OR GRAY BROWN CLAY - ORIGINAL GRADE
- ORIGINAL GRADE, DISTURBED BY FUEL TANKS

FIGURE 29
AREA A
0 NORTH LINE
NORTH PROFILE

slumped to cover the capping slab. Under that interpretation, the wall then was constructed by the residents who followed Dowdall on the lot.

All of the features attributable to the Dowdall occupation share common traits. All are sealed by a level of tan clay fill that was brought in to level the lot. Marked Dowdall bottles were found in all four features, as were pieces of eroded marble used in the production of mineral water. Many of the marble pieces appeared to have been subjected to acid. Further, the mean ceramic dates cluster within or very close to the documented occupation range of 1848-1852. These features, therefore, provide an excellent study collection from the early industrial period that is attributable to a specific occupant. The artifacts from these features will receive detailed treatment in the artifact analysis chapter.

The latest barrel privy found on this lot was numbered Feature 18 (Figure 30 and Plate 5). The privy intrudes into the tan clay fill that capped the Dowdall deposits and measured 3 feet in diameter by 4.5 feet deep. The barrel within this privy was larger than that used for Feature 25 and rested on several stones that had apparently been used to raise and level the barrel (Figure 30). The barrel was apparently cleaned of fecal matter before abandonment and was filled with displaced material that may not have originated on the lot. The mean ceramic date for the ceramics from this feature was 1842.40, although there is no doubt from stratigraphic evidence that it post-dates the Dowdall occupation. The artifacts from the privy fill included large numbers of small eroded sherds and few restorable vessels. No marked Dowdall bottles were recovered from the privy fill. Since the privy contained displaced refuse that cannot be related to any of the known lot occupations, it contains no real analytical value in terms of pursuing the project research design. This feature is, therefore, not discussed in detail in the artifact analysis chapter.

The remaining features and architectural elements within Area A appear to post-date the Dowdall occupation. The wall that was constructed over Feature 25 is apparently part of a structure that was oriented roughly east-west (Figure 28). The walls associated with this structure were constructed of stone and ran to a major stone lined feature (Feature 19) to the west. Feature 19 was the largest feature encountered in Area A and was rectangular, with surface dimensions of about 7 by 11 feet (Figure 31). Three walls of this feature were constructed of fieldstone sealed with mortar, while the fourth (south) wall was brick. The brick wall appears to have been added later than those constructed of stone. The bottom of the feature extended to a depth of seven feet, and was marked by a decomposed plank floor. The feature was filled with a mixture of horse manure, straw, and artifacts and had apparently been last used as a manure pit. This may mean that the connected structure was a barn, and it is evident that the feature and structure were in use during the time the Walton and Whann Fertilizer Company occupied the lot. The ceramics and glass marks recovered from the manure fill suggest a filling date of around 1900. The number of ceramic sherds from the feature was too small for a Mean Ceramic Date calculation. The artifacts recovered from this feature will be discussed in the artifact analysis chapter.

The remaining features (Figure 27) found in Area A appear to have little analytical value. These include a pipe trench (Feature 7), a fragment of

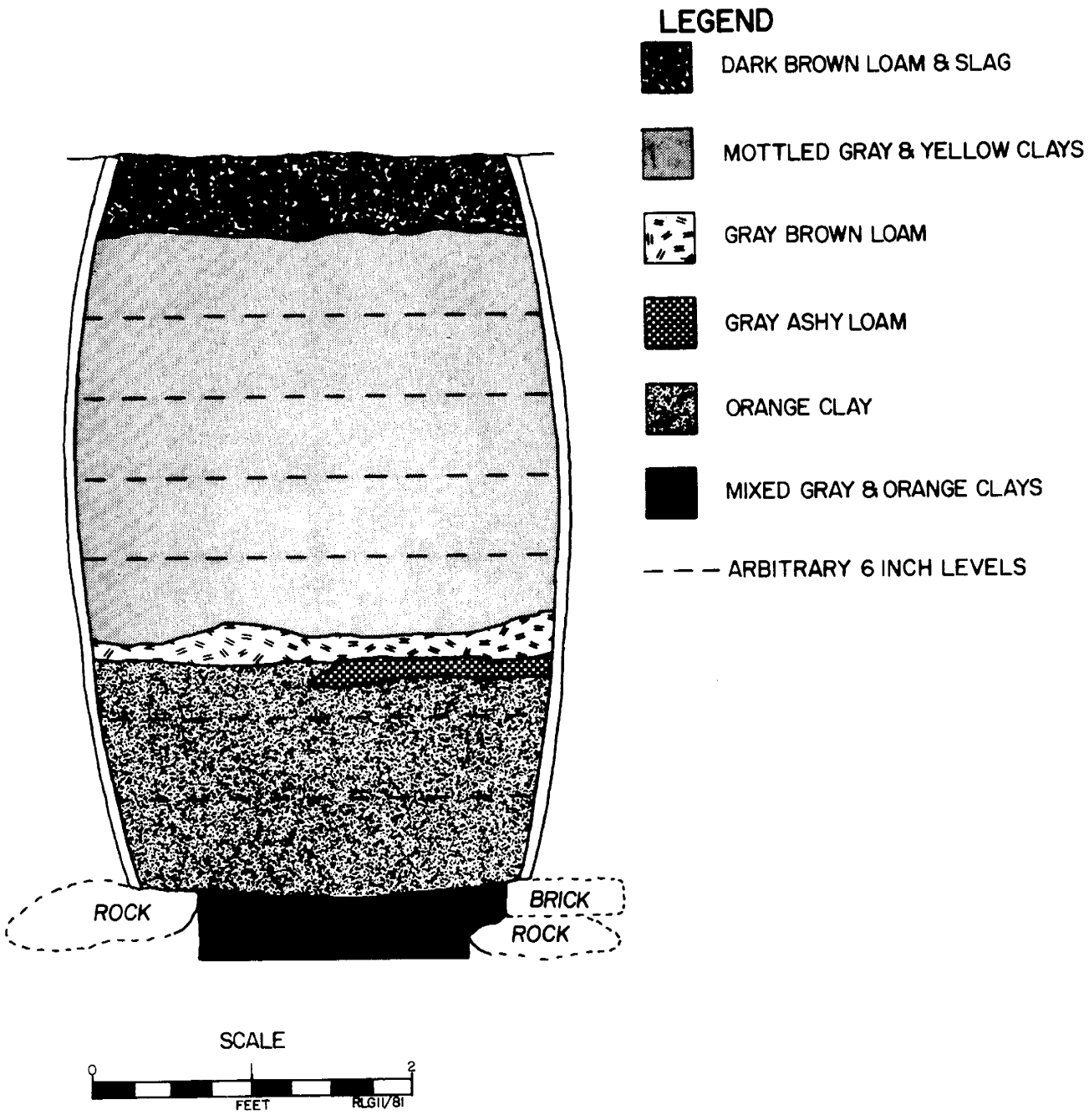


FIGURE 30

AREA A
FEATURE NUMBER 18
EAST PROFILE

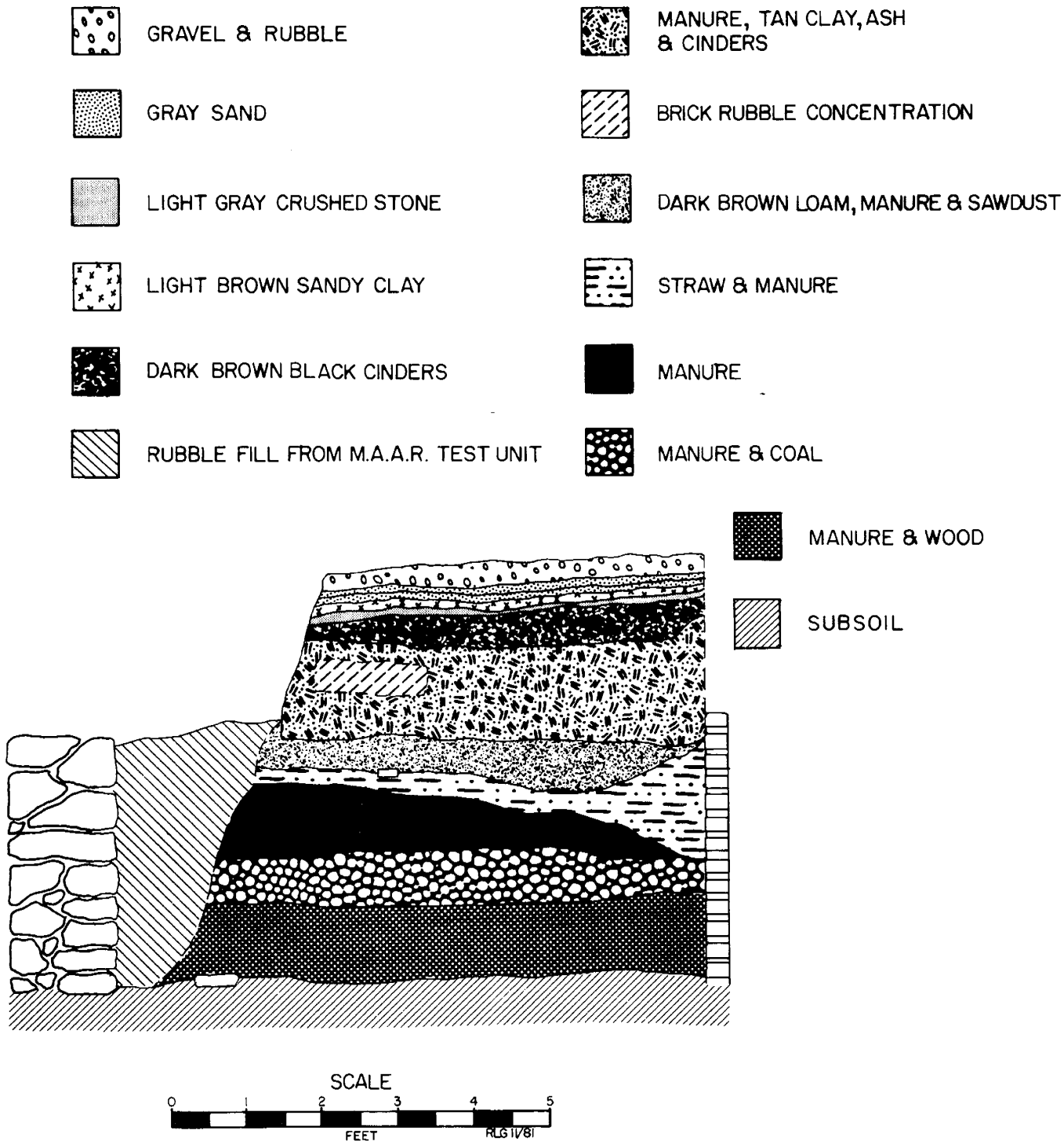


FIGURE 31
AREA A
FEATURE NUMBER 19
EAST PROFILE

PLATE 5 - AREA A FEATURE NUMBER 18

Belgian Block walkway, and several small irregular features (Features 6, 8a and b, 9a and b, 26, and 31). The pipe trench was filled with mottled clay, and probably dates to the industrial period. The Belgian Block walkway and the cobblestones that covered much of this lot similarly appear to date to the late nineteenth century. The other features were either postmolds or unexplainable anomalies.

A number of distinct fill levels dating from the second half of the nineteenth century were also excavated. Unfortunately, the material from those fill strata could not be linked to lot occupants, and the fill appears to have been brought in from outside the lot. Since the research design requires that artifacts used for analysis be at least attributable to the study lot, none of the fill artifacts will be discussed in the artifact analysis chapter.

Area B: Shipley Street to Orange Street

The study lot within Area B was located at 101 (and 103) Shipley Street (Figure 32). All structures on this lot had been demolished prior to the investigation, and the entire area had been covered with select fill (a grade of coarse clayey sand used as construction fill). Those land alterations had covered or destroyed all surface evidence of structures or features (Plate 6).

The MAAR report made no recommendation for the investigation of this area. Further, documentary data available prior to excavation provided no information for selecting a lot suitable for meeting the research data requirements. As a result, the original plan called for selection of a lot from the middle of the block. The available information on the block as a whole and for nearby blocks suggested that lots within this area would be associated with the following occupation categories:

1. Middle socio-economic level residences of the eighteenth century, in addition to some commercial properties.

2. Similar residences and commercial properties in the early and middle nineteenth century.

3. Lower socio-economic level residences and commercial properties in the late nineteenth century.

It was assumed that the selected lot in the center of the block would produce structural materials and artifacts representative of these occupational categories. This strategy changed, however, when Mrs. John B. France, a resident of New Castle, Delaware, contacted the SSI field crew. Mrs. France produced a photograph (Plate 8) taken in the 1860s of a structure standing at the corner of Front and Shipley Streets. A brief history accompanying the photograph indicated that the structure and property had been occupied in the eighteenth century by a cooper, and later by the cooper's son, who was a prominent cabinet maker in the nineteenth century. The focus of the excavation changed to 101 Shipley Street based on the photograph and property history.

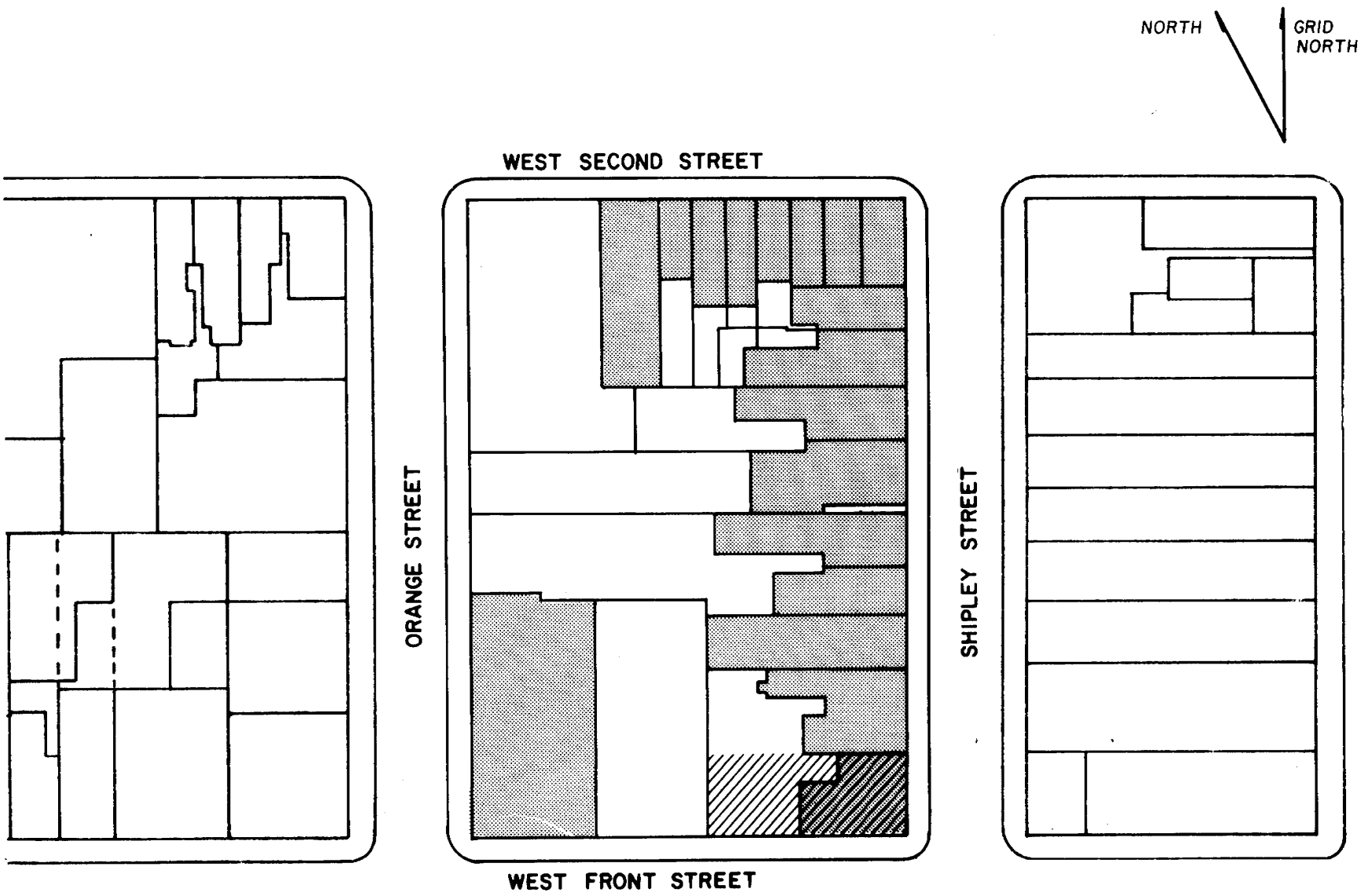


FIGURE 32
AREA B
STUDY LOT

PLATE 6 - AREA B LOOKING TO THE SOUTH

PLATE 7 - AREA B, TERRACE EXCAVATIONS LOOKING TO THE WEST

PLATE 8 - PHOTOGRAPH OF 101 SHIPLEY STREET CIRCA 1860'S

Subsequent historical research supported the historical information that accompanied the photograph. William Jones, a cooper, built the house at the corner of Shipley and Front Streets shortly after acquiring the land in the 1760s. The house faced Shipley Street, and extended a few feet into the Front Street right-of-way. The Jones family occupation of this lot was indicative of the mixed residential-commercial nature of this block in the eighteenth and early nineteenth centuries. William G. Jones (the son) continued to own and occupy the property through the mid-nineteenth century. After 1845, the entire block appears to have assumed a more commercial character. The block continued to contain some residences after 1845, but the development of a commercial business district within the area had a decided impact on the block. The building at 101 Shipley Street contained a clothier store from at least 1884 to the 1890s, and that function appears to have been reflective of the character of the block at that time.

It was anticipated that excavation of 101 Shipley Street would yield artifacts and features related to craftsman's shops and households from the mid-eighteenth to mid-nineteenth centuries. Further, it was anticipated that those households would have contained families of approximately middle socio-economic standing. Although the post-1845 residents were not known, it was further anticipated that those occupations would have reflected the transition to Wilmington's industrial period.

Area B: Data Recovery

Archaeological investigation of 101 Shipley Street began with backhoe trench testing. The purpose of the trenching was to delineate what archaeological deposits were present and to provide sufficient planning data to organize the full data recovery phase. The first trench, designated Trench A, was excavated along the 85 east grid line from Front Street to Second Street (Figure 33). That trench location was selected as it coincided with the boundary separating properties from those fronting on Shipley from those fronting on Orange Street. Trench A was excavated to a depth of seven feet below ground surface at the Front Street end. The trench revealed grey clay underlying a black marsh soil. The terrain sloped upward from Front to Second Street, and the grey clay subsoil was encountered at a depth of three feet on the Second Street side. The trench was terminated when the foundations of buildings fronting Second Street were encountered. Samples were recovered from the dark grey to black marsh soil, at ten foot intervals within the trench, and from each identified feature. No clearly defined accretional occupation levels were identified above the original ground level (i.e. marsh soil).

The samples taken from the original ground level produced a mean ceramic date of 1805.38, which is significantly later than the mean ceramic date achieved on this level during the data recovery. The date disparity between the testing and data recovery results may be explained by the low density of artifacts recovered during the testing. The sequence of deposits above the original ground level is complex, with no deposit continuous through the profile. In general, the profile indicates that filling took place on each property at different times, using different materials.

Because the trench ran down the property line dividing properties fronting on Orange Street from properties fronting on Shipley Street, a number of privies

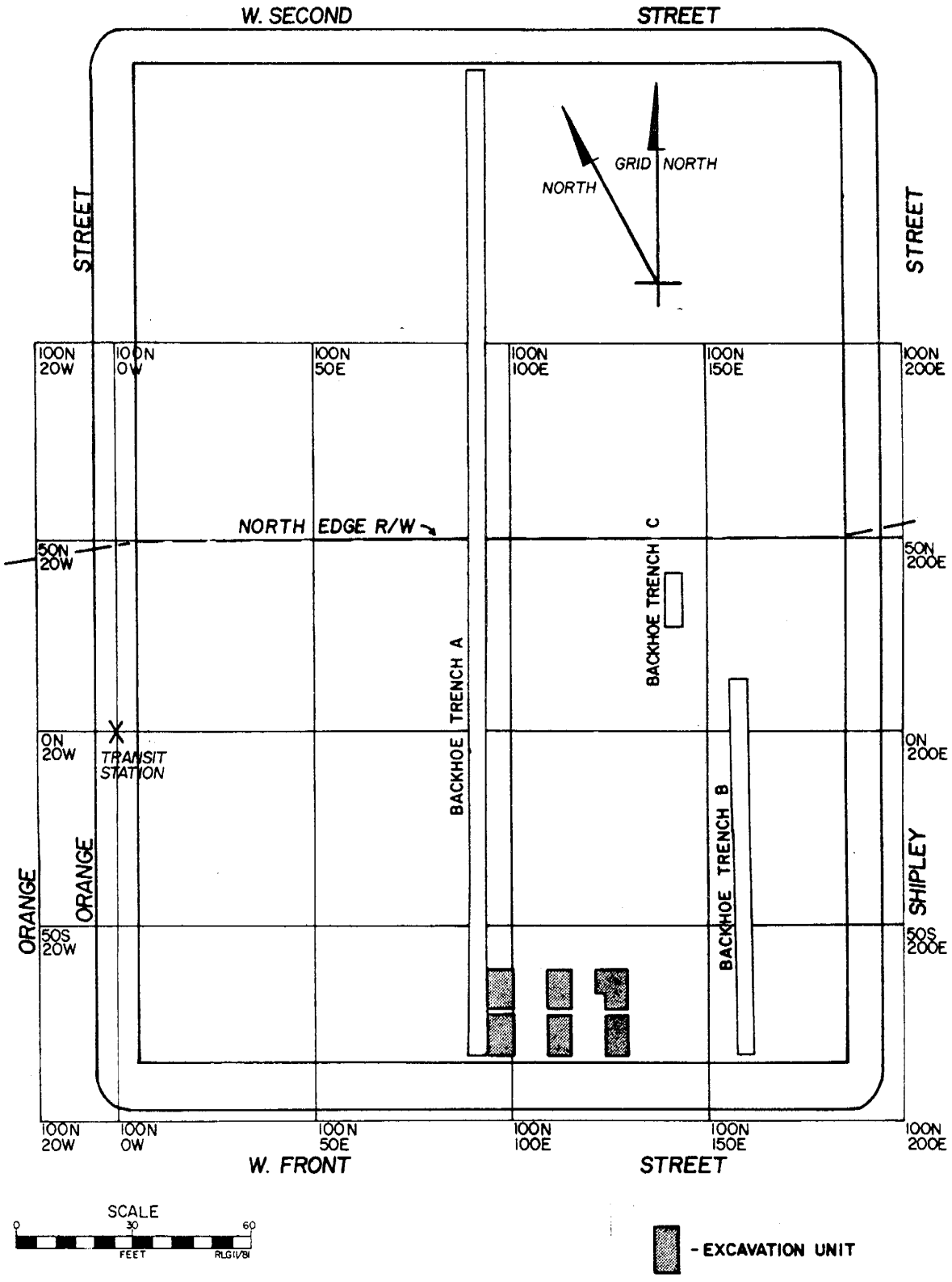


FIGURE 33
AREA B
BACKHOE TRENCHES AND
EXCAVATION UNIT LOCATION

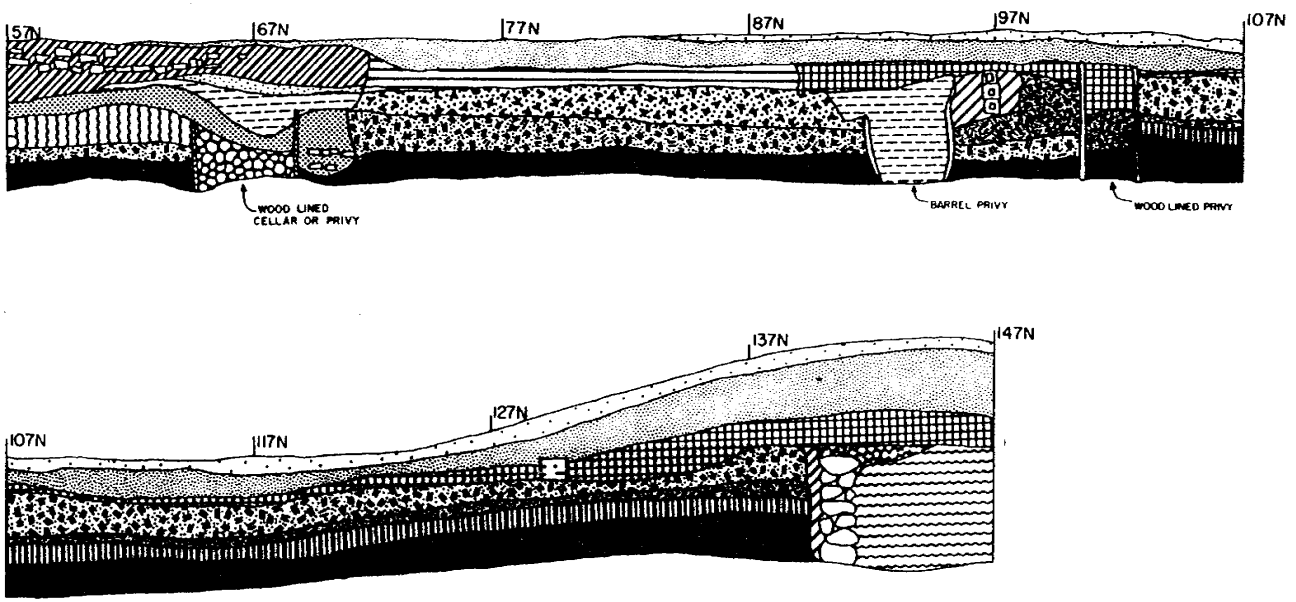
were encountered. Four of these privies were exposed in the west wall of the trench, and are shown on the west wall profile (Figure 34). The remaining five were exposed on the east wall, which was not drawn, although the location and profile of each was recorded. Of the nine privies exposed, four were barrel-lined, one was square or rectangular and board-lined, and four were brick-lined. All of these features originated at levels above the original ground level, although they did not all begin at the same stratigraphic level. All of the privies for which acceptable dating evidence (primarily mean ceramic dates) was available appeared to date from the mid-nineteenth century or later. There appears to have been a sequence of replacement of barrel-lined privies by more permanent brick-lined privies after the ground surface had been raised to its twentieth-century level. This is illustrated most clearly by a group of three privies exposed in the east wall at approximately grid point 23S/100E. Two barrel-lined privies at this location were intruded by a brick-lined privy which originated at a point just below the existing ground surface. The barrel-lined privies originated at approximately three feet below the existing ground surface.

Two additional test trenches were excavated within this block. Trench B (Figure 35) extended north for approximately 100 feet from Front Street along grid line 170 east. Trenching was terminated when it was determined that the majority of the encountered deposits consisted of cellar holes filled with recent debris. The third trench, Trench C (Figure 33), was placed 40 feet west of Trench B along the 140 east grid line in an attempt to avoid modern cellar fill. That trench was abandoned after 25 feet as the encountered deposits again consisted of modern cellar fill. Samples were not taken in Trenches B and C because of the lack of suitable archaeological deposits.

The rationale for selecting 101 Shipley Street for data recovery has been previously discussed. The backhoe trenches did reinforce that selection, however, as that area proved to contain the deepest deposits found in Area B. The exceptional depth of the deposits necessitated altering the standard excavation strategy in order to adequately retrieve a sample of this lot within existing time and monetary constraints. The revised strategy called for mechanical excavation of three terraces followed by careful hand excavation of units within the terraces (Plate 7) (Figure 36).

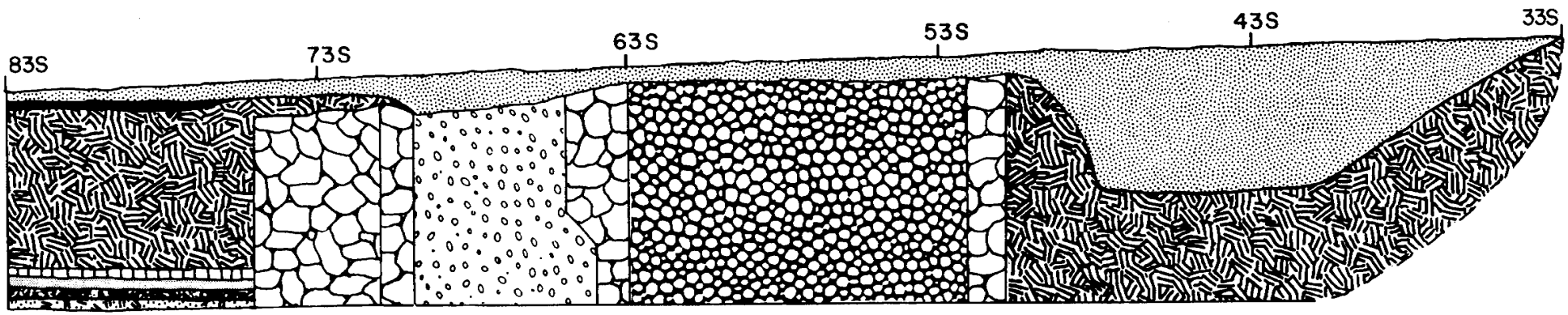
The highest terrace encompassed the western third of the targeted area. That terrace was stripped, by backhoe, of asphalt and demolition debris that had been covered with select fill. Two five-foot by ten-foot excavation units were laid out on the terrace, and one was excavated to a depth of 2.5 feet below the top of the select fill. The second unit was abandoned because study of the deposits in the first unit indicated that only late nineteenth to early twentieth century fill was present. Two features were isolated in the upper terrace.

The second terrace occupied the middle third of the investigation area. That terrace was created by removing the top 2.5 feet of deposits (which had been determined to contain only fill) by backhoe. Once again, two five-foot by ten-foot units were laid out and, in this instance, both were excavated by hand. Those units were carried to 5.0 feet below the top of the select fill. A few features were identified, in addition to one possible occupation level (ERB1E) consisting of black ash.



BRICK & MORTAR RUBBLE
GRAY ASH
COARSE YELLOW SAND WITH PEBBLES
GRAY SAND WITH MORTAR
BROWN SANDY CLAY WITH RUBBLE & ASH
MOTTLED TAN & RED CLAY
GRAY & BROWN CLAY
BRICK RUBBLE
D.O.T. SPECIAL FILL
DARK GRAY SAND & ASH
BROWN SANDY CLAY WITH COAL & ASH
GRAVEL PAVING
HARD PACKED BLACK SANDY CLAY
BUILDER'S TRENCH
BROWN SANDY CLAY
ORGANIC PRIVY FILL
GRAY & RED SANDY CLAY
BROWN HUMUS WITH ARTIFACTS
POURED CONCRETE
CELLAR FILL

FIGURE 34
AREA B
TRENCH A
WEST PROFILE,
NORTH SECTION



D.O.T. SPECIAL FILL

BRICK RUBBLE

BRICK RUBBLE WITH BLACK CINDERS

GRAY CLAY WITH ASH & BRICK RUBBLE

ASPHALT

ORANGE TAN SAND

PINKISH GRAY CLAY

GRAY CLAY WITH PEBBLES

SCALE

0 5 10

FEET

FIGURE 35

AREA B
TRENCH B
WEST PROFILE

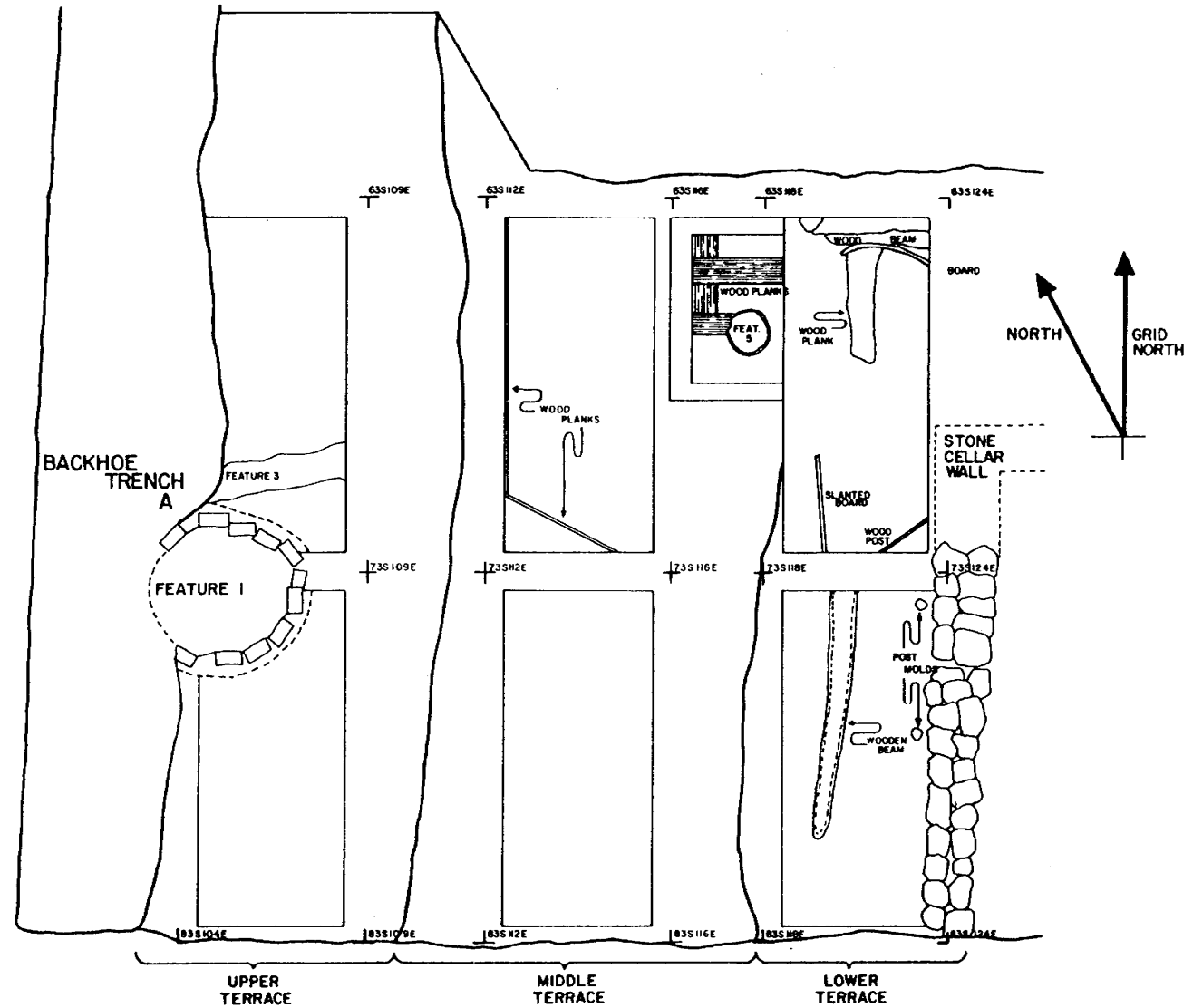


FIGURE 36

AREA B
PLAN VIEW
TERRACES WITH
EXCAVATION UNITS
AND FEATURES

The deepest terrace was placed in the eastern third of the excavation area. The third terrace was created by a backhoe cut that extended approximately five feet below the top of the select fill. As in the case of the other terraces, two five by ten-foot excavation units were laid out, and the third terrace was excavated by hand to the base of the dark grey to black marsh soil. Excavation of the lower terrace yielded a number of features and an apparent occupation level.

The earliest deposits found at 101 Shipley Street were located in the lower terrace (Table 10) (Figure 37). The two excavated units (73 south/124 east and 83 south/124 east) included a stratum of dark grey to black clay which appears to be indicative of a marsh deposit. Lenses of sand and pebbles were found in that stratum which appear to indicate that alluvium was sporatically deposited within the formative marsh soils. A board construction was found in Unit 83 south/124 east, which consisted of a cedar plank laid on bricks parallel to a stone cellar wall that formed the eastern margin of that unit. The relationship of the stone cellar walls and the marsh deposits could not be determined, as the area adjacent to the wall had been excavated by backhoe. That plank may be related to decomposed boards found at the same level in the next unit to the north. The ground level at the base of that foundation sloped, so that the board construction may have been used to guide drainage. Also, it is equally plausible that the board construction was a simple walkway used to span the marshy ground surface.

The dark grey to black clay that has been interpreted as a marsh deposit apparently represented ground surface at the time of the original construction on this lot. Historical data indicate that the lot was part of a pasture prior to development, and it is unlikely that that function would have led to the deposition of much in the way of cultural material. The mean ceramic date achieved for this stratum was 1771.81, which was calculated on the basis of a fairly small sherd sample. It is assumed that deposition of material in that stratum post-dated 1763, the date of purchase by William Jones (the cooper). Study of the artifacts present indicate that material ceased to be added to that stratum by the beginning of the nineteenth century, and by that calculation (assuming an end date of 1800) the median date for the stratum should be 1781.5. The differential between the mean ceramic date and the assumed median date is 9.77 years, which represents a large error under the mean ceramic dating technique. The error probably resulted from the relatively small sample size and the over representation of buff-bodied slipware sherds in the sample. Forty-five buff-bodied slipware sherds, apparently all from the same vessel, were recovered, and those sherds represent 38 percent of the total dateable ceramic collection. The relatively early median date for that type evidently skewed the mean ceramic date and made the deposit appear to be earlier than its actual median deposition date. At any rate, the marsh deposit can be firmly linked to the eighteenth century, and its artifact content was most likely deposited by the William Jones family. The artifacts recovered from the marsh stratum will be discussed in the artifact analysis chapter as they appear to represent materials attributable to residential/commercial activities within the lot.

The land surface within Area B apparently remained low and marshy until around 1800. Loads of orange sand, brown sand, red-brown sand, and dark brown clay with organics were initially brought in and deposited over the

TABLE 10. Area B Deposit Summary; Lowest to Highest Deposit

ER Number	Description	Interpretation and Stratigraphic Data	Mean Ceramic Date
B8Z1, B8Z2, B9Z1, B9Z2,	dark grey to black organic clay	original marsh surface, contains secondary refuse	1771.8
B8B, B8C, B9C, B9E, B9F, B9G, B9H	deposits of orange sand, brown sand, and dark brown clay with organics	fill deposited to raise ground surface, contains displaced refuse	1799.0
B8A, B9A, B9B	tan clay	fill, partially overlies levels listed above	No Date
B4C, B4D, B5D, B5E, B5F, B5G	deposits of grey sand, dark reddish brown clay, and tan yellow clay	fill deposits to raise ground surface, contains displaced refuse	1799.7
Feature No. 5 ERB11	barrel-lined privy	intrusive into ERB8B, B8C, B9C, B9E, etc. deposits. Contains displaced refuse	1813.68
B4B, B5A, B5B, B5C,	deposits of brown clay with gravel, brown sandy clay with brick rubble, yellow brown sand with gravel and rubble	fill containing displaced refuse	No Date
B1E	grey loam with black ash	possible occupation surface containing secondary refuse	1809.47
B1B, B1C, B1D, B1G	various fill deposits of clay and rubble	fill with displaced refuse	No Date
Feature No. 1 ERB2	brick-lined privy	lower level of fecal material, with secondary refuse, capped by demolition rubble	Late 19th Century

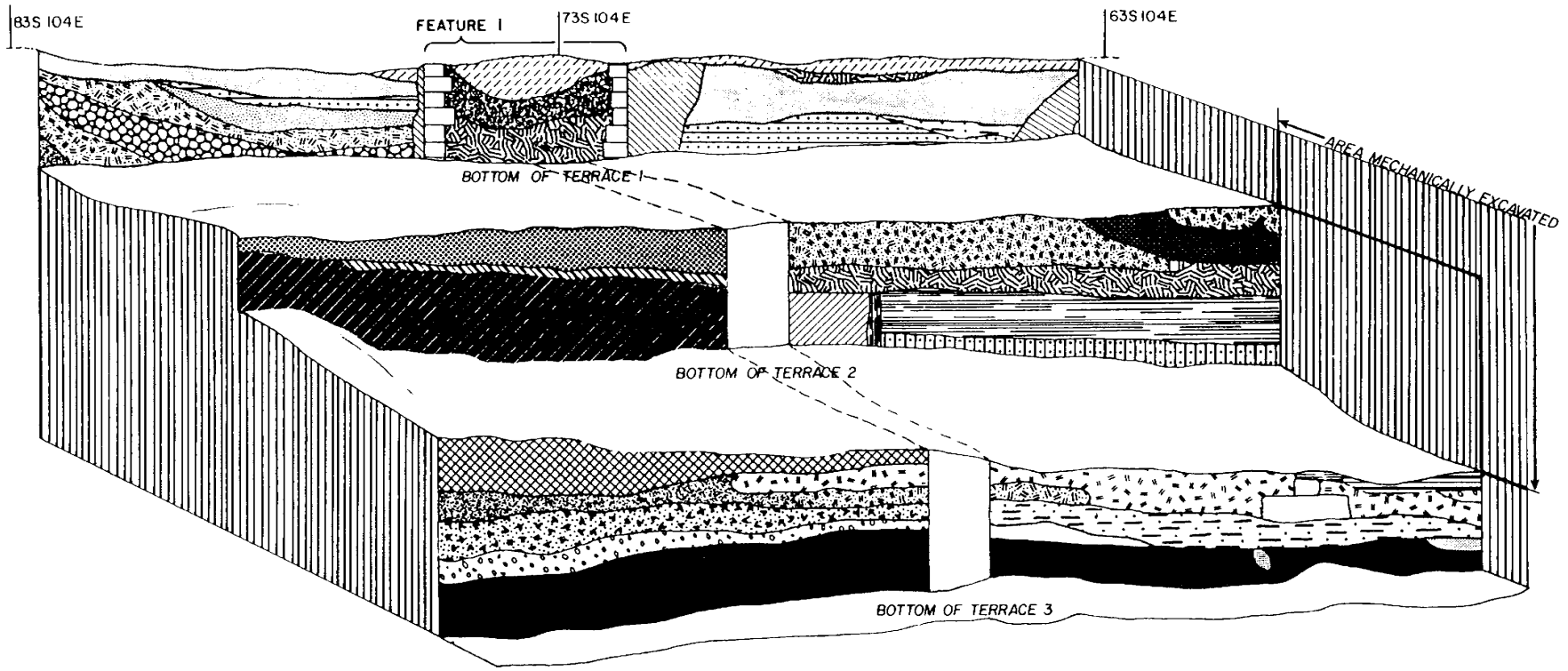


FIGURE 37
AREA B
WEST PROFILES ALONG
104E, 112E, & 118E LINES

original marsh surface (Figure 37). The mean ceramic date achieved for those strata was 1799.0, and it is apparent that the surface created by that fill was left open for at least a brief time, as numerous wood chips were recovered from the interface of those strata and the fill placed above that fill. The wood chips were partially capped over by a deposit of tan clay, which in turn was covered by gray sand and dark reddish-brown clay.

The surface created by the gray sand and dark reddish-brown clay fill apparently created an occupation surface that was left open for at least a brief period. A barrel-lined privy (Feature No. 5) intruded into the dark reddish-brown clay in the northern unit of the second terrace (Figure 37). Unfortunately, the privy contained very few artifacts, and the mean ceramic date of this feature of 1813.68 is based on a sample of only 15 sherds. That mean ceramic date is later than the 1799 mean ceramic date derived for the fill below the privy, but also later than the 1808.56 achieved from an occupation level above the feature. Those dating relationships are confusing, although the privy can be firmly linked to the Jones family occupancy on the lot. The privy was doubtlessly utilized for a short period of time before being covered with additional fill. That interpretation is validated at least in part by the sparse artifact content achieved, and the privy was capped with boards before additional fill strata were added to the area.

The privy was covered by a stratum of brown clay with gravel, and the area was further built up through the addition of brown sandy clay with brick rubble and yellow brown sandy fill with gravel and rubble (Figure 37). Part of that fill in Figure 37 is obscured by a board placed on its side and deposited as a part of the filling activity.

The second true occupation level identified within Area B was found overlying the fill deposits that covered the privy. That occupation level occurred as a lens containing black ash (ERB1E) and the ceramics from that stratum yielded a mean ceramic date of 1809.47. The artifacts from that ash lens will be further discussed in the Analysis chapter, but it is sufficient to state at this point that the occupation level can be firmly linked to the Jones family occupation of Area B.

The fill levels above the occupation level appear to represent attempts made in the second half of the nineteenth century to bring this lot up to grade with the surrounding topography. One major and two minor features were found in the fill of the upper terrace, and the contents of each dated to the late nineteenth century. The minor features included a pipe trench (Figure 36) and a trash pit (not illustrated) that produced small amounts of artifacts. The major feature was a large brick-lined privy (Feature No. 1) that was encountered immediately below the demolition debris that capped the lot. That privy extended all the way down to original topsoil (Figure 36) (Plates 9 and 10) and contained a layer of fecal matter in the bottom. Again, the few artifacts recovered dated from the late nineteenth century, but the artifact sample size was far too small to support the analytical techniques required to test the project research design.

Area B exhibited the greatest degree of fill placement encountered during the Wilmington Boulevard Project. Most of the fill appears to have been in place before the Jones family left the property in 1845. Unfortunately, there is

PLATE 9 - AREA B CLOSE-UP TERRACE EXCAVATIONS, WITH FEATURE NUMBER 1

PLATE 10 - AREA B FEATURE NUMBER 1

no way to link the artifacts in the fill strata with the Jones occupation as fill of the magnitude present must have been brought in from an outside source. The filling at 101 Shipley Street was completed by the late nineteenth century.

The marshy deposit encountered at the base of the fill and the ash lens occupation level were the only strata that produced sufficient numbers of artifacts to support analytical techniques required for this project. The materials recovered from those strata will be discussed in the Artifact Analysis chapter.

Area C: Shipley Street to Market Street

The structures on the block from Shipley to Market Streets were demolished during July, 1980, and the timing afforded an opportunity to observe the demolition process. The lots on this block had originally been oriented east-west, and inspections carried out during demolition indicated that all of the lots north of the one adjacent to Front Street had been either completely covered by cellars, or had sustained sufficient damage to destroy any archaeological deposits that might have been present. This left the lot adjacent to Front Street for investigation, and the testing effort centered on that lot (Figure 38).

Historical data available at the time of the testing indicated that Joseph Way had built his house on the northwest corner of Market and Front Streets by 1736. Way sold his house to an innkeeper by 1739, and the house continued to stand and function as a tavern or hotel until it was dismantled in the early nineteenth century. A larger hotel was constructed on the site at that time and continued to function as a hotel until 1936 until it was torn down to make way for a gas station. The Way house fronted on Market Street, with the backyard toward the Shipley Street side.

The MAAR testing report recommended that investigations be conducted on the Shipley to Market Street block, but that the focus of that investigation be the exploration of architectural remains. The architectural focus recommended by MAAR was inconsistent with the SSI research design, and the decision was made to explore the original backyard of the Way property. The investigations within Area C were conducted to pursue two broad types of resources. Those resource types were:

1. an early eighteenth century upper socio-economic level household; and

2. an early eighteenth century to twentieth century commercial land use.

Unfortunately, testing indicated that the above stated goals could not be pursued on this block because of the absence of intact archaeological remains.

Area C: Field Investigations

Two backhoe trenches were placed in what had been the backyard of the Joseph Way house (Figure 39). Trench A extended approximately 30 feet from Front

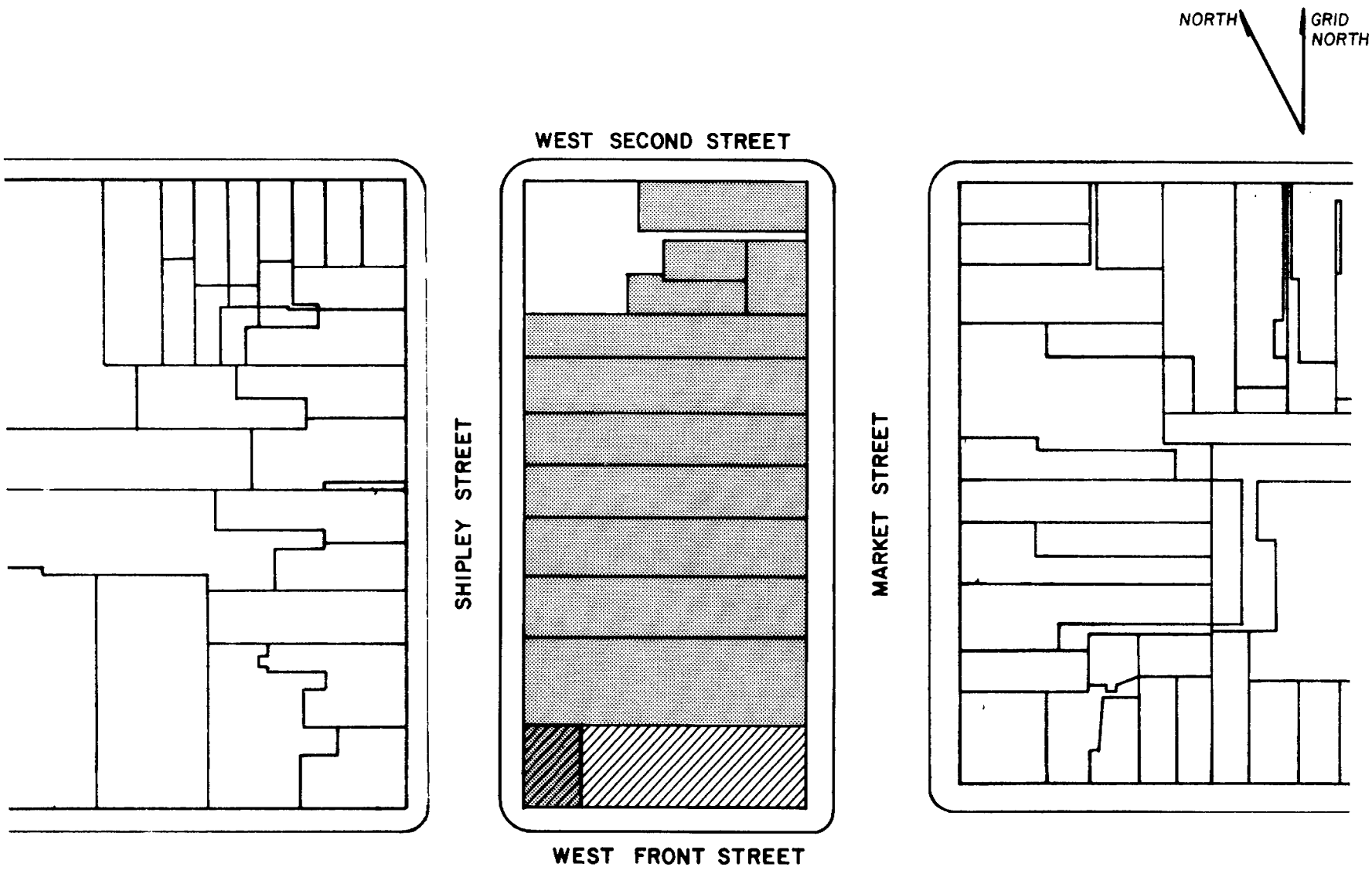
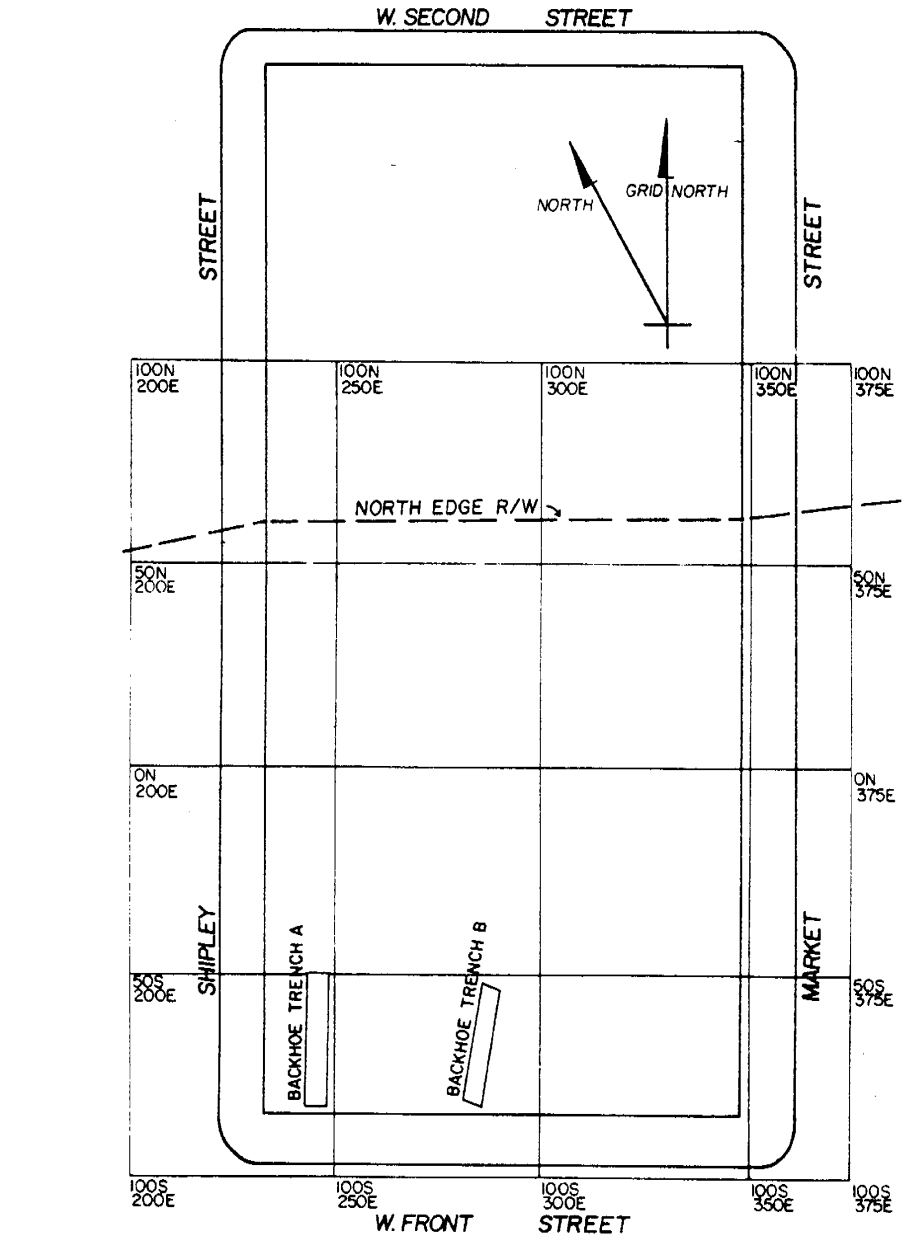


FIGURE 38
AREA C
STUDY LOT



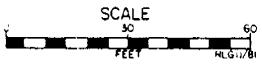


FIGURE 39
AREA C
TRENCH LOCATIONS

Street along the 248 east grid line and revealed nineteenth and twentieth century fill overlying sterile subsoil. Filled cellar holes, pipe trenches, and buried cables were also present. Trench B, aligned between the 270 east and 277 east grid lines yielded similar results. Since no significant archaeological remains were found on this property, it was decided that data recovery operations would not yield results that would provide tests for the project research hypotheses. No further excavations were conducted in Area C.

Areas D, E, and F: Market Street to King Street

The Market to King Street block (Figure 40) was the most intensively explored block within the Wilmington Boulevard Project. Two large scale excavations (D and E) were conducted on this block, as well as extensive backhoe testing (F) (Figure 41). Area D included portions of 106 Market Street, and 7 and 9 East Front Street, located in the southern portion of the block. Area E was located in the west-central portion of the block and included portions of 118 and 120 Market Street and the northernmost lots on the west side of Milner's Court. Area F was the designation for a series of backhoe tests placed east and west of Area D cross-cutting a number of lots.

All standing structures on the block had been demolished prior to the summer of 1980. The structures facing Market Street were demolished during the MAAR testing program, while the remaining structures were demolished before acquisition of the property by Delaware DOT. The areas which contained structures demolished by Delaware DOT were covered with select fill, while the remainder of the block had been paved to make a parking lot.

The MAAR testing report recommended that the Market to King Street block be given highest priority during data recovery. The full extent of the MAAR recommendations could not be carried out, however, due to the need to focus attention on other blocks not originally recommended for full data recovery in the MAAR report.

Historical data available prior to the SSI fieldwork indicated that the Market to King Street block should contain archaeological deposits that would be germane to testing the project research design, especially for the pre-industrial period. The 1736 Ferris Map depicted two structures on this block, with one facing Market Street and the second facing Front Street. The rear yards of those two lots offered excellent starting points for the archaeological investigation, and expansion of the investigation to surrounding lots promised to offer important information on later occupations as well. This block was, based on historical data presented in the MAAR report, expected to contain information reflective of the following series of land uses:

1. eighteenth century middle to high socio-economic level households, and mixed residential and commercial properties;

2. early to middle nineteenth century low to middle socio-economic level households and continued mixed residential and commercial properties; and

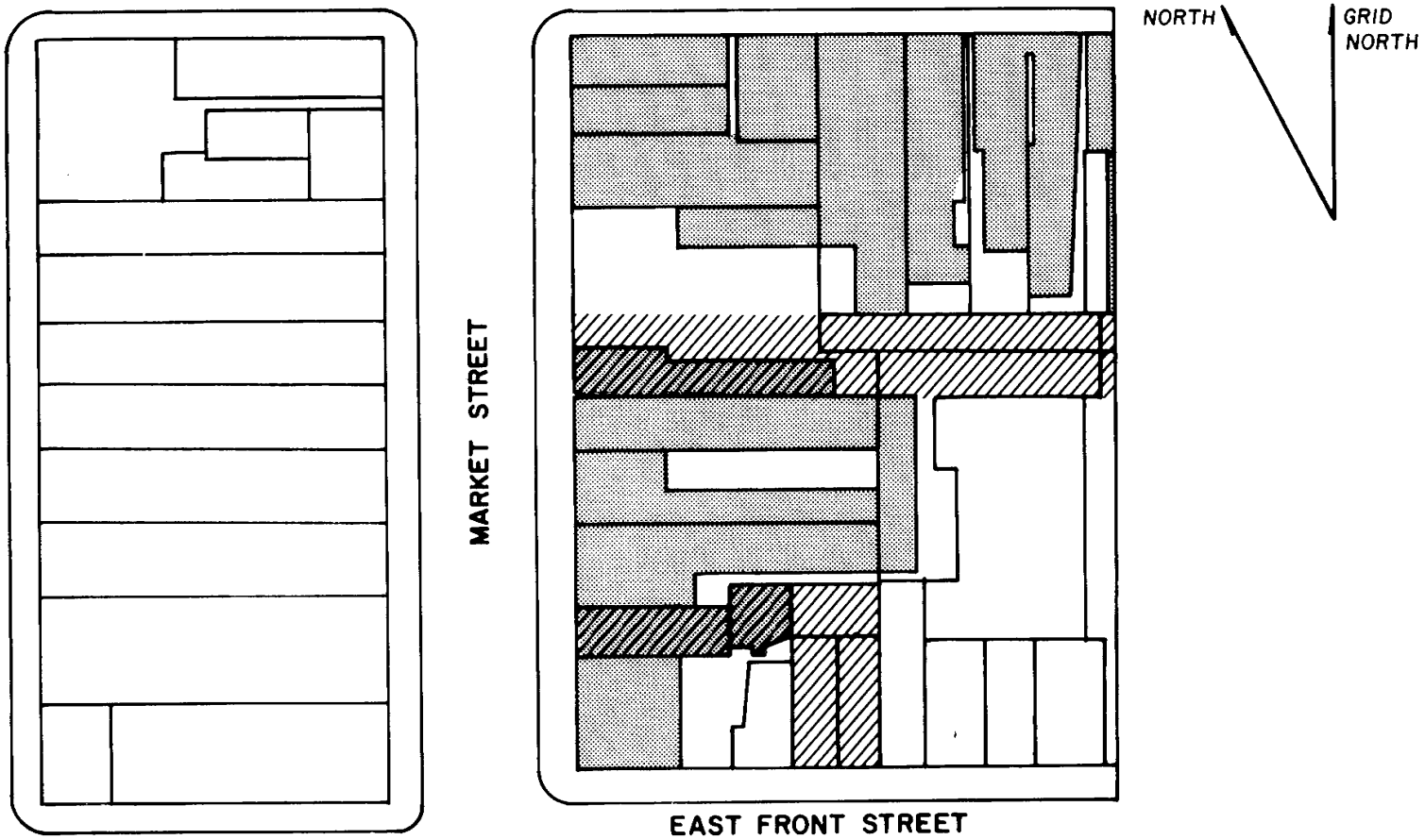


FIGURE 40
AREAS D AND E
STUDY LOTS

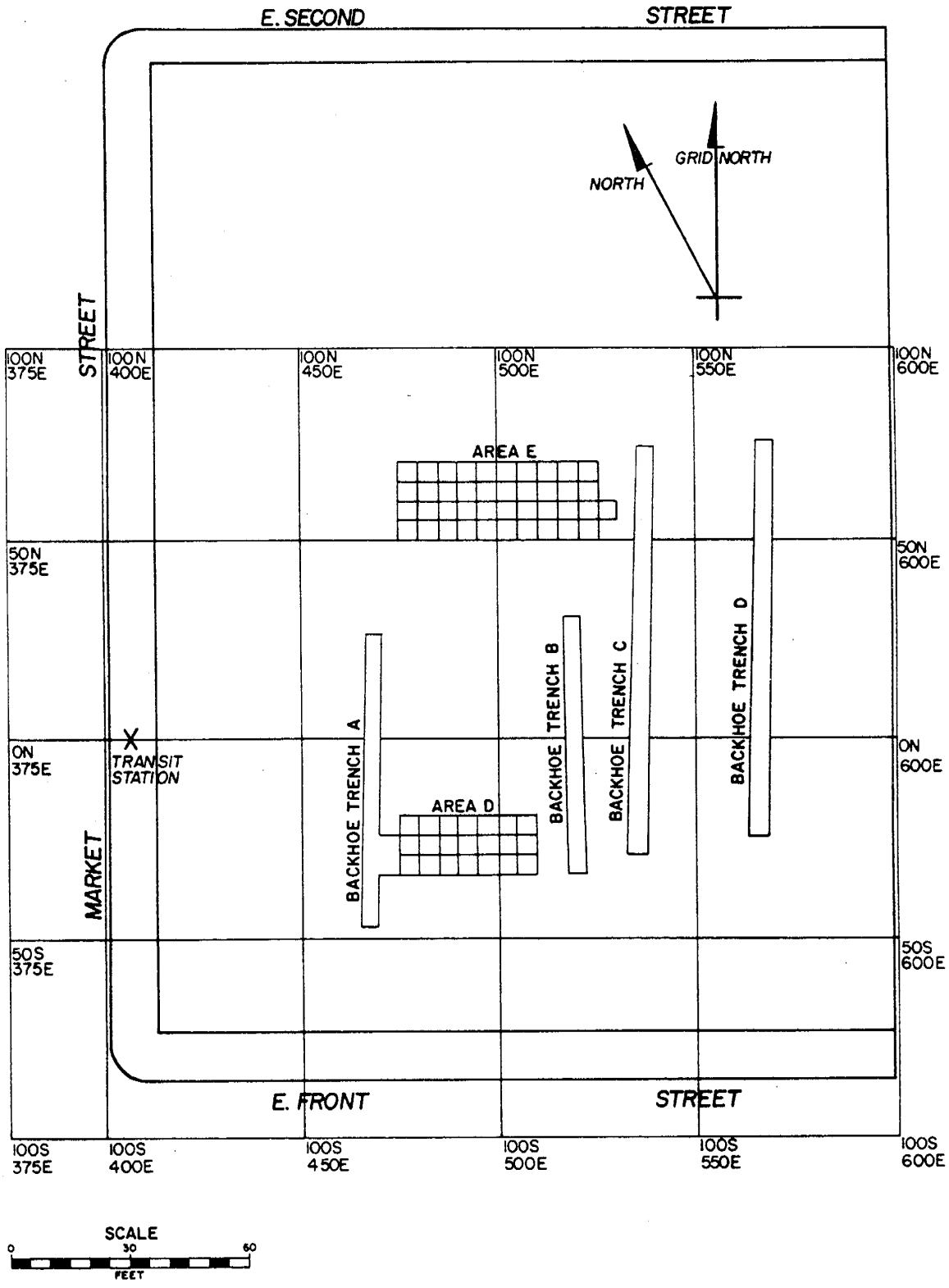


FIGURE 41
AREAS D, E, AND F
EXCAVATION AREAS
AND BACKHOE TRENCHES

3. middle to late nineteenth century commercial properties.

The expectations based on the MAAR data were confirmed and refined by SSI historical research. This block was one of the first parcels laid out in Wilmington. The initial occupants were members of Wilmington's middle and high socio-economic level groups, and by 1810 most of the upper socio-economic residents had left the block. After 1810, the block was occupied by small retailers who maintained both businesses and residences on the block. That pattern persisted through the remainder of the nineteenth century.

Area D: History and Data Recovery

Area D cross-cut lots that contained a mixture of socio-economic groups in the eighteenth and nineteenth centuries. The western end of the lot, which yielded a large cistern reused as a privy, was owned by Dr. Nicholas Way during the 1780s. Dr. Way was a prominent citizen of Wilmington, and can be placed in the high socio-economic level group of the city at that time. The remaining lots crossed by Area D were rental properties. The Way property was owned in 1814 by a small retailer who had his shop and home on the lot by that time. The lots incorporated into Area D continued to retain its small retailer owner/occupant character until the early years of the twentieth century.

Data recovery in Area D centered on a brick lined cistern turned privy (Feature No. 1) in the backyard of 106 Market Street, and the backyards of lots that had faced Front Street (Figures 42 and 43). The excavation area stretched between Backhoe Trenches A and B, which are described under Area F. The brick-lined privy proved to be the most significant archaeological feature found in Area D, and one of the most important deposits explored in the entire Wilmington Boulevard Project.

Feature 1 was found during excavation of Backhoe Trench A (Figure 43). This feature was oval and measured appproximately five feet wide by seven feet long. The walls of the feature were composed of a single row of bricks placed in a stretcher pattern. The east wall of the feature was flattened, apparently to conform to a property boundary. The top three feet of Feature 1 consisted of recent demolition rubble overlying a deposit of brown soil which contained demolition rubble, which in turn overlay levels of brown silty clay and tan clay. A cast iron sewer pipe cut through the layer of brown soil and demolition rubble. The remaining eight feet of deposits in Feature 1 consisted of a mixture of fecal matter, secondary refuse, and large lumps of grey clay. The grey clay had apparently been dumped into the fecal material in an attempt to periodically cap the deposits, and the clay had sunk through the semi-liquid fecal matter and totally displaced the secondary refuse deposited in the feature. Ceramic and glass fragments that cross-mended were found scattered through the vertical extent of this deposit, but the full extent of the disturbance caused by the grey clay cannot be measured because of the techniques employed during the excavation of this feature. The entire eight foot stratum of fecal matter, secondary refuse, and clay was excavated as a single level, and no attempt was made to remove the deposit in arbitrary levels. This breakdown in field technique probably obscured some types of data that could have otherwise been gained

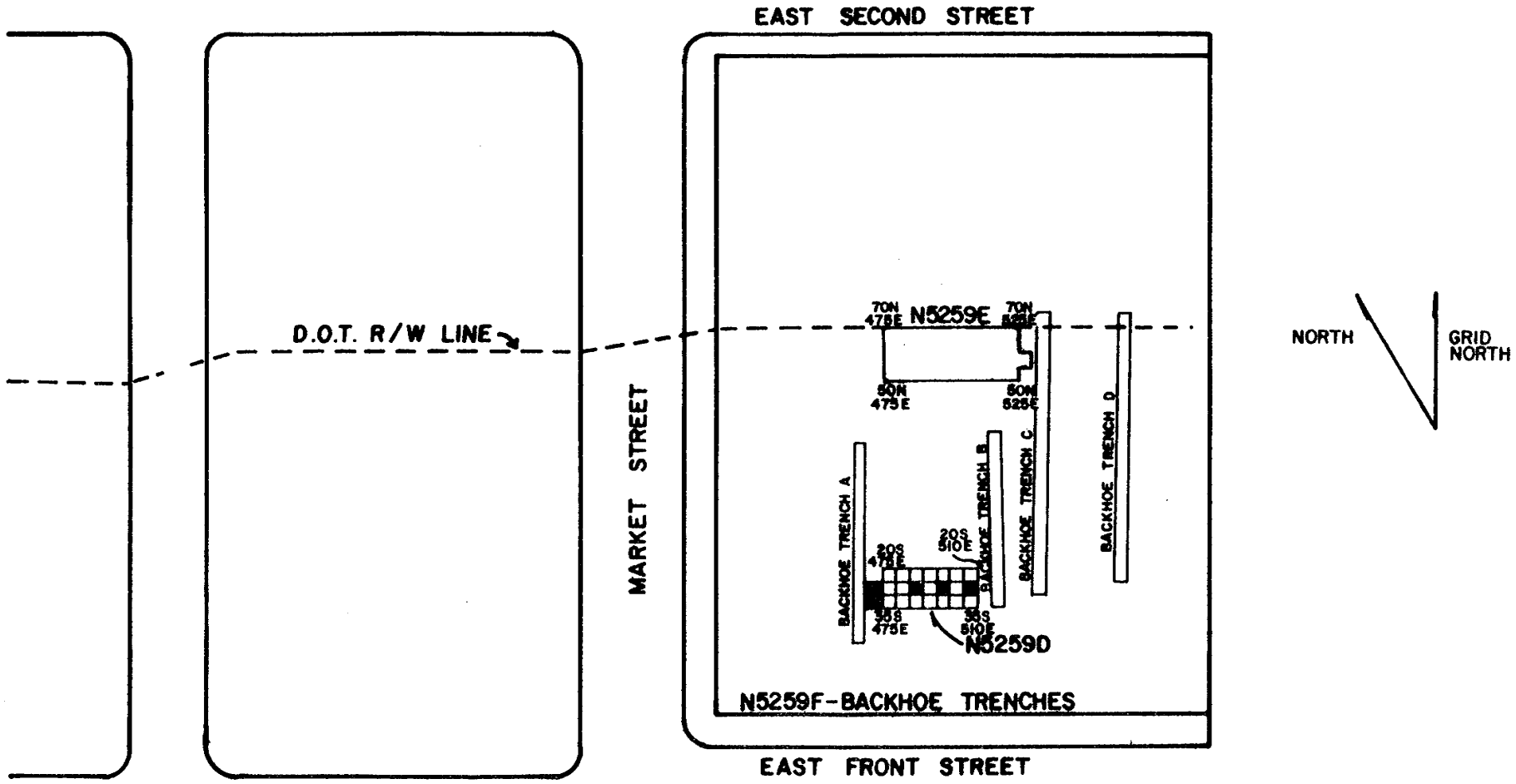


FIGURE 42
AREA D
EXCAVATION UNIT
LOCATIONS

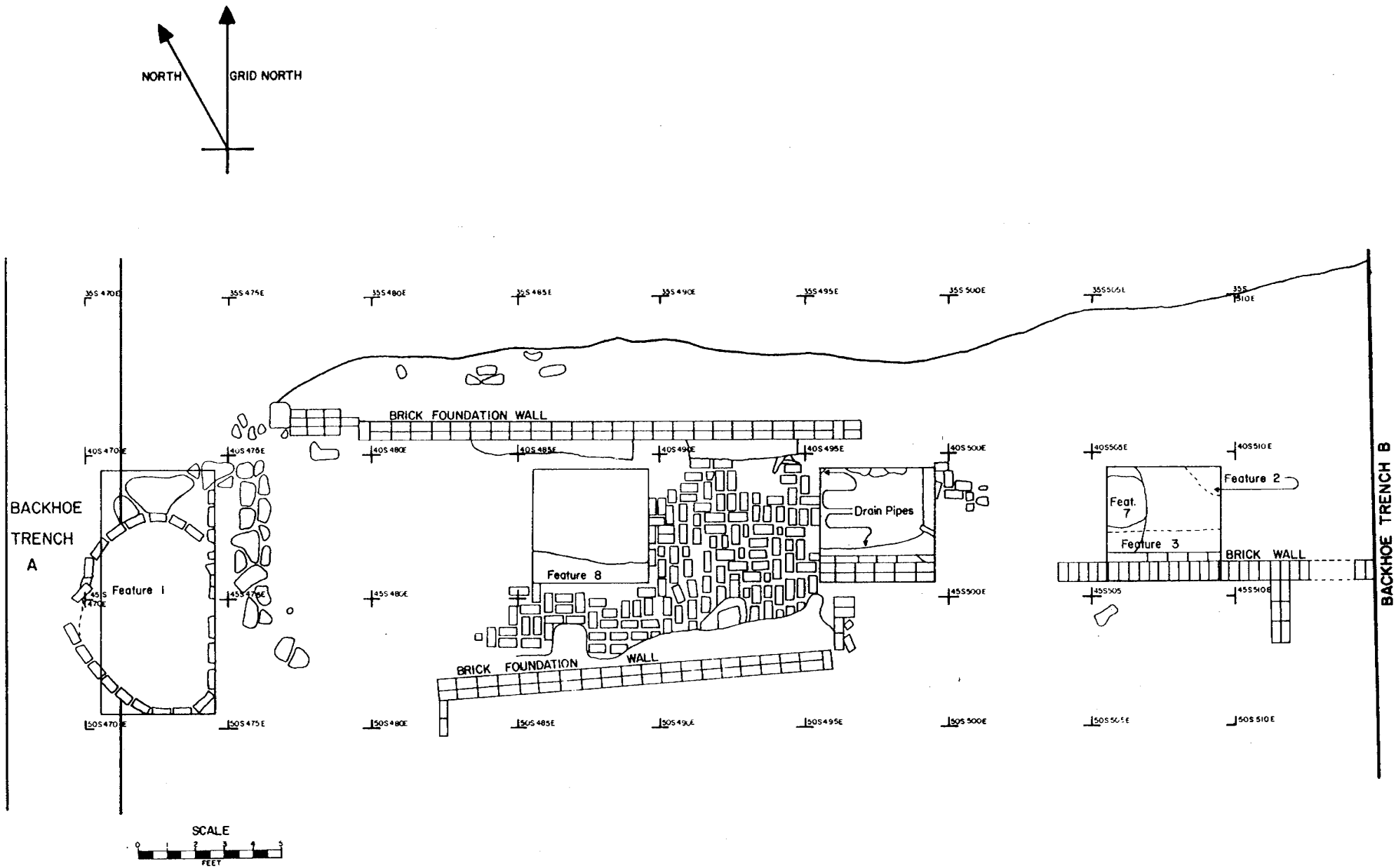


FIGURE 43
AREA D
EXCAVATION AREA
WITH FEATURE LOCATIONS

from this feature, although it does not render the materials gained from the feature totally unsuitable for analysis.

Feature 1 was apparently constructed to serve as a cistern. The date of construction of this feature cannot be determined based on excavation data, but it is evident that the feature served as a privy after it no longer served as a cistern. The ceramics recovered from the stratum of fecal matter, secondary refuse, and clay yielded a mean ceramic date of 1802.33, and the artifacts are, for the most part, consistent with a deposition date of the 1790s to ca. 1810. Two ceramic marks were found that date beyond that range, and unfortunately those were the only marks recovered. A transfer printed cup bore the mark "Clews Stone China", which was used between 1818 and 1834 (Godden 1964:151, 152). The second maker's mark, "Shorthose & Co.", has been dated to 1817 (Godden 1964:576). Both vessels could have been intrusive additions to the fill, as study of the collections indicate that the deposits should have been in place before the property was occupied by the shopkeeper in 1814. The collections from the cistern/privy will be discussed in detail in the artifact analysis chapter.

The remainder of the data recovery effort in Area D was concentrated on lots to the east of the cistern. Much of that area was covered by a parking lot prior to the investigation, and the structures in that area had been demolished in the 1950s. The excavation strategy called for mechanical stripping of surface materials to expose backyard sections of two lots. Once the stripping was completed, three five foot by five foot units were laid out for hand excavation. The presence of rubble filled cellars north and south of the units in the lot at 106 Market Street dictated the small unit size, and that size was continued for the unit that spanned the lots at 7 and 9 Front Street.

Excavation of the three units yielded no substantial archaeological features, (Table 11) (Figure 44), and that result can easily be explained in terms of the historical property divisions on the block (Areas D and E, Block Histories, Appendix B). The area chosen for excavation was located immediately adjacent to the exterior rear walls of structures that faced Market Street during the time when cisterns and privies were in use. It is hardly surprising then, that the units yielded topsoils with artifacts dating from the middle of the eighteenth to the middle of the nineteenth centuries, and pipe trenches, brick walks, and minor anomalies that post-date that span. The artifacts removed from the Area D topsoil deposits will be discussed in the Analysis chapter. That discussion is limited to the artifact pattern level, but the sample extracted from Area D does provide useable comparative data for discussing the occupation levels from other areas.

Area E: History and Data Recovery

Area E spanned one lot on Market Street and two others on Milner's Court (Figure 40). The hand excavated units appear to have been restricted to the lots at 118 and 120 Market Street and the northernmost lots on the west side of Milner's Court, and fortunately historical maps and the archaeological data provide means of separating the collections into those constituent lots. The lots presently on Milner's Court were, historically, portions of a lot

TABLE 11. Area D Deposit Summary; Lowest to Highest Deposit

ER Number	Description	Interpretation and Stratigraphic Data	Mean Ceramic Date
Feature No. 1 ERD2G, H, and I	fecal material with grey clay, in a brick-lined feature	cistern reused as a privy with fecal material containing secondary refuse	1802.33
Feature No. 1 ERD2A, D2B, D2E, D2F	deposits of demolition rubble overlying brown soil with rubble, and levels of brown silty clay and tan clay in brick-lined feature	fill deposits in upper levels of cistern/privy, overlies fecal material and contained displaced refuse	No Date
D2C	pipe trench	trench intrusive to fill deposits in cistern/privy	No Date
D1Z, D3Z1 D3Z2, D9Z1, D9Z2, D9Z3,	grey-brown silty clay	original topsoil and grade, contains secondary refuse	1804.5
D1E, D3E, D9E, D9F, D6, D7, D1A, D1B, D1C, D1D, D3B, D3C, D3D D9B, D9C, D9D, D5, D11	deposits of clay, demolition rubble, pipe trenches, brick pavements	fill deposits of displaced refuse, brick walks, and pipe trenches, each excavation unit in Area D has different stratigraphic sequence, see Figure 44 for unit profiles	No Date
D3A, D9A	brick pavement	brick pavement caps all deposits in Area A, underlies asphalt pavement	No Date

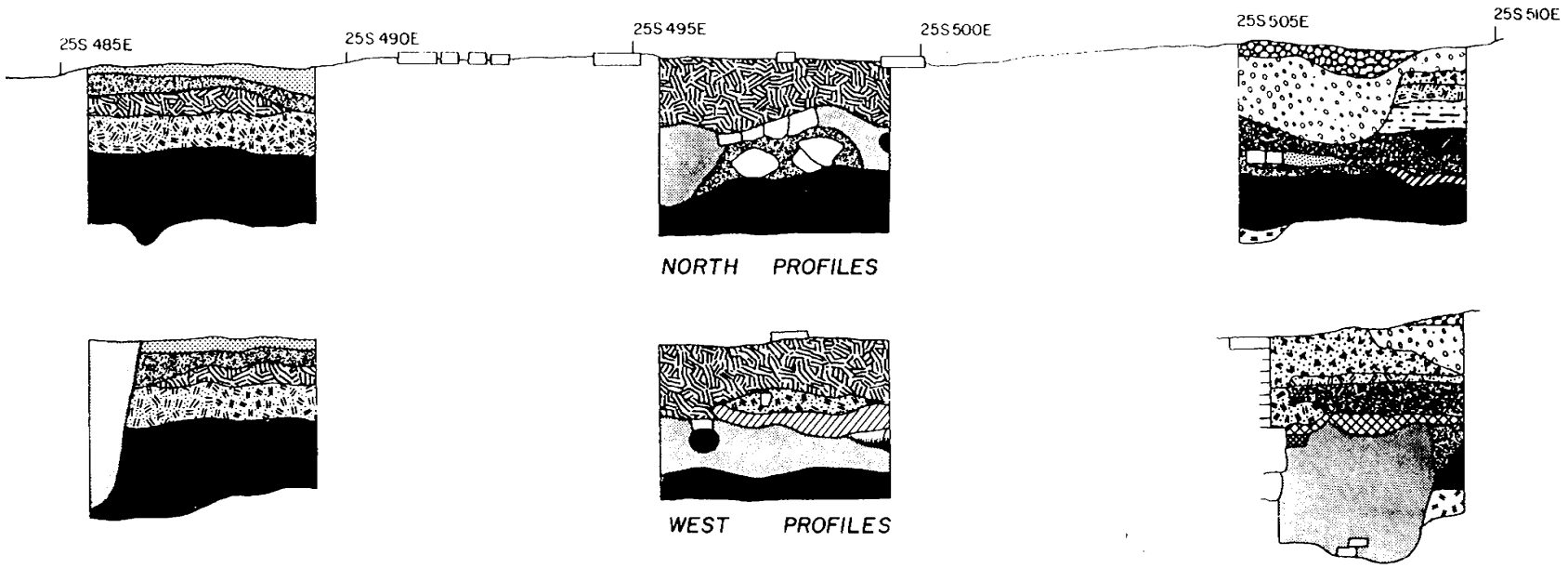


FIGURE 44
AREA D
NORTH AND WEST
WALL PROFILES OF
EXCAVATION UNITS

fronting on Second Street. These properties will be referred to as the "Second Street lot" in the following discussion.

The lot at 118-120 Market Street was one of the earliest lots developed in Wilmington and was one of two areas on the block with a structure, as indicated on the 1736 Ferris Map. This lot housed middle to high socio-economic level families during the eighteenth century and included such families as the Hannums and the Brooms among its occupants. The residential pattern on the lot shifted by the nineteenth century, and the lot housed the residence and business of a dry goods store operator by 1814. That shift is indicative of the changes in land use that took place on the entire block at about that same time.

The lot facing Second Street was located in the eastern portion of the Area E excavation. The dividing line between the two lots was approximately the 510 east grid line (Figure 42). Initial development of this lot followed that of the lot to the west, and the earliest property division that involved this lot was 1747. Little historical data is available on this lot, but it can be assumed that the lot residents enjoyed parallel status to those on the 118-120 Market Street lot. The change in land use in the nineteenth century referenced for other portions of the Market to King Street block was also reflected on the Second Street lot. The lots facing Second Street did include a ship captain among its residents at that time, but most of the lots housed laborers or small shop keepers. The Second Street area was fully developed by the 1880s and contained businesses such as saloons, a laundry, and a cigar store.

Data recovery in Area E was conducted through excavation of a series of five foot square units (Figure 45) (Plate 11). Seven units were excavated to the west of the 510 east grid line on the lot that contained a house indicated on the 1736 Ferris Map. Four complete units and part of a fifth were excavated on the Second Street lot. Also, a major disturbance which had contained a looted privy and a MAAR test unit was cleaned. Further, a concrete lined shaft with a surrounding brick wall was cleaned.

The excavations conducted on the Market Street lot failed to reveal major features, but did yield a large sample of artifacts from a sheet midden that had covered that lot (Table 12) (Figures 46 and 47). The sheet midden, which had accumulated within and above the original topsoil layer on the lot, was a homogeneous grey-brown sandy or silty clay that ranged from 0.5 to 2.0 feet in thickness. The sheet midden was capped by a brick patio that sealed that stratum during the first few years of the nineteenth century. There were some intrusions, such as from a pipe trench, but the sheet midden did appear to be intact over most of the excavated units. The sheet midden was excavated by 0.5 foot arbitrary levels in units where the thickness of the stratum exceeded 0.5 feet, and mean ceramic dates calculated for those levels indicate that the sheet midden was relatively intact, with the oldest dates achieved from the lowest levels. The overall mean ceramic date derived from this midden was 1774, and study of the artifacts indicates that it is doubtful that artifacts were added after about 1805. As previously mentioned, the 1736 Ferris Map does show a house on this lot at this time, and the artifact build-up probably began in the 1730s or slightly later.

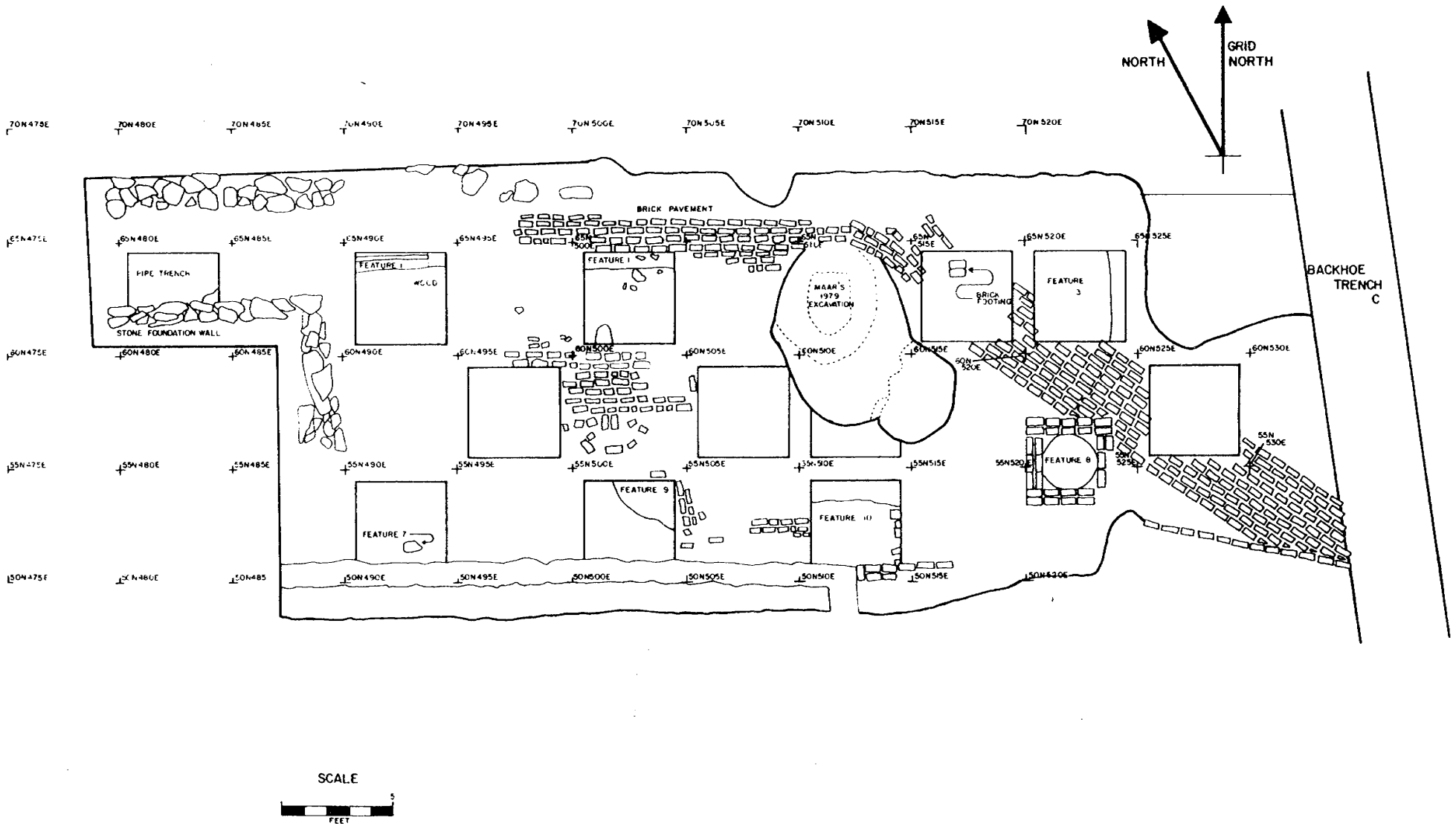


FIGURE 45
AREA E
EXCAVATION AREA
WITH FEATURE LOCATIONS

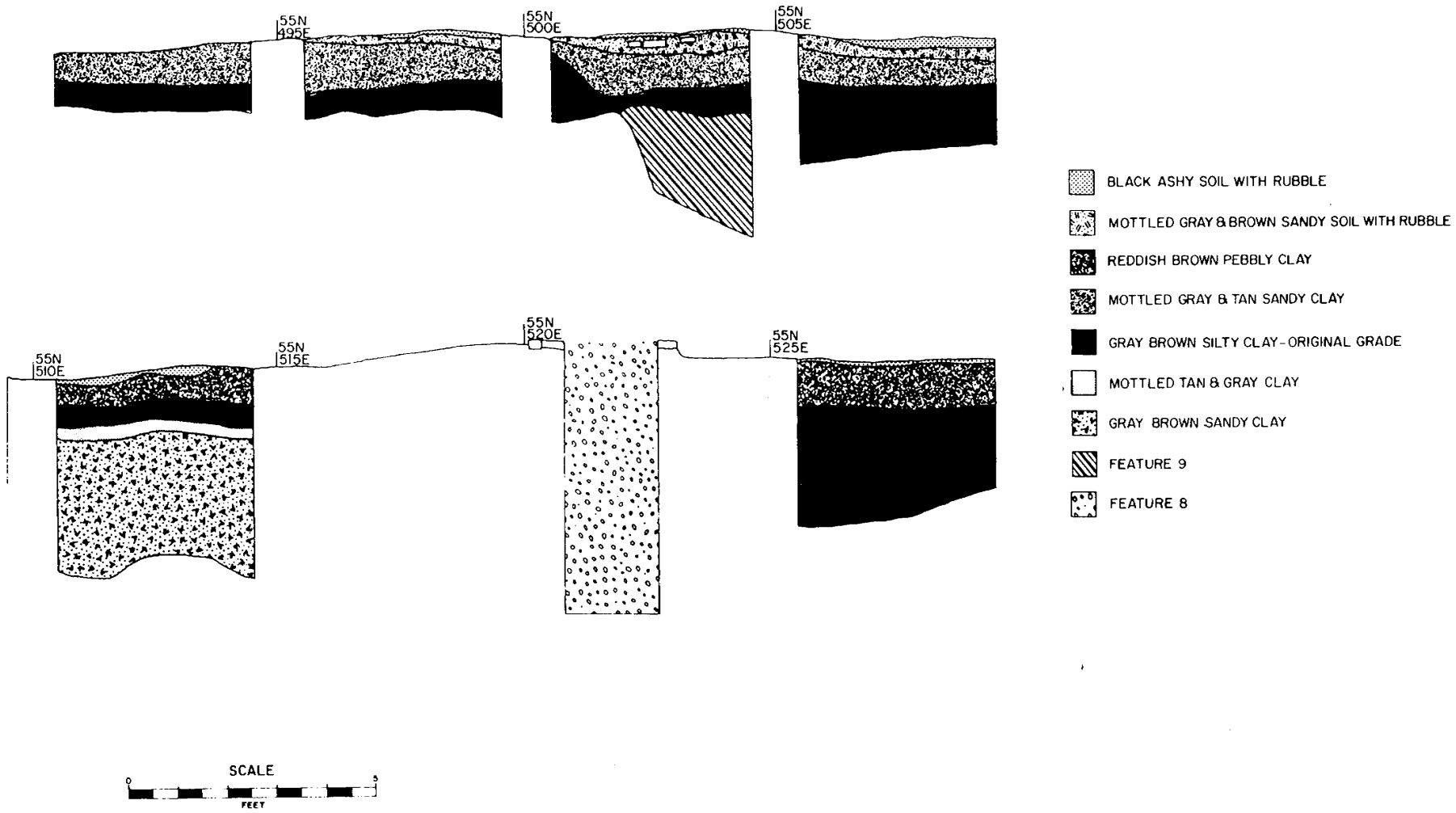
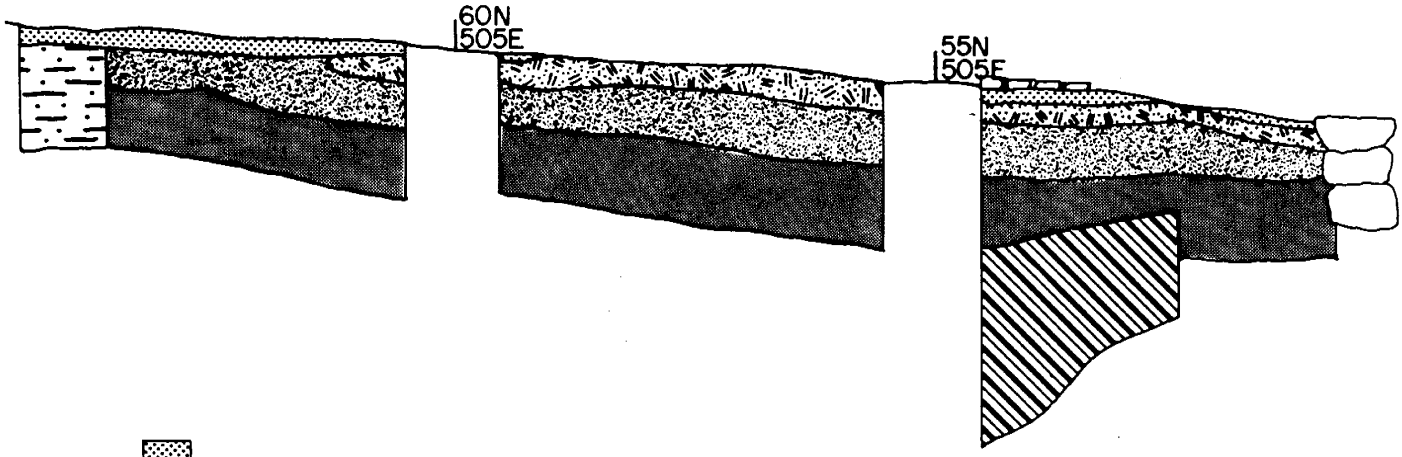


FIGURE 46
AREA E
55 NORTH LINE,
NORTH PROFILE



BLACK ASHY SOIL WITH RUBBLE

MOTTLED GRAY & BROWN SANDY SOIL WITH RUBBLE

MOTTLED GRAY & TAN SANDY CLAY

GRAY BROWN SILTY CLAY - ORIGINAL GRADE

FEATURE 1

FEATURE 9

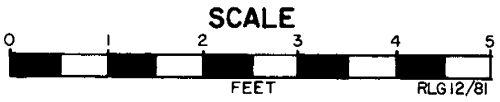


FIGURE 47
AREA E
505 EAST LINE
EAST PROFILE

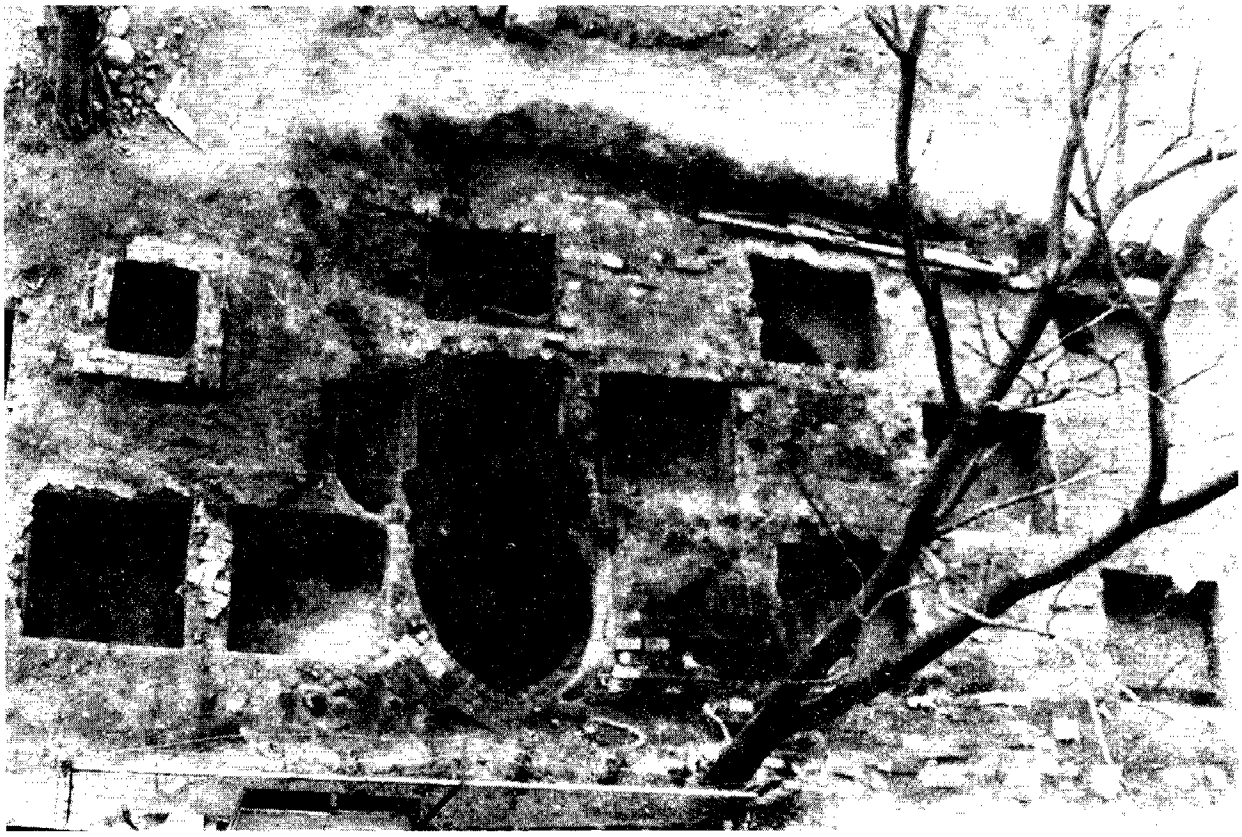


PLATE 11 - AREA E- AERIAL OF EXCAVATIONS

TABLE 12. Area E Deposit Summary; Lowest to Highest Deposit

ER Number	Description	Interpretation and Stratigraphic Data	Mean Ceramic Date
E3C1, E3C2, E5C1, E5C2, E12C1, E12C2, E12C3, E13C1, E13C2, E16C1, E18C1	grey-brown sandy and silty clay, on Market Street lot	sheet midden within original topsoil, contains secondary refuse	1774
E2C1, E4C1, E4C2, E7C2, E7C3, E15C1, E14C1, E14C2, E14C3, E14C4	grey-brown sandy and silty clay, on Second Street lot	same as above	1782
E3B, E4A, E5B, E12A2, E12B, E13A2, E13A4, E13B, E14A3, E15A2, E15A3, E16A2, E16B, E17, E18A2, E18B, E20	mottled grey and tan clay	overlies original topsoil, appears to have been deposited to level ground for brick pavement, contains displaced refuse	No Date
ER2A, ER3A E5A, E7A E12A1, E13A1, E14A1, E15A1, E16A1	brick pavement and associated sand ben	overlies mottled, yellow and tan clay	No Date
E2E1, E2E2, E15E1, E15E2 E15E3, E15E4, E15E5	builder's pit	barrel privy's builder's pit, lies in Second Street lot, privy dug by MAAR, upper portions of topsoil overlie builder's pit and privy, pit contains displaced refuse	1770.7
E6	pipe trench	intrusive into brick pavement	No Date

The materials recovered from the sheet midden on the Market Street lot date to the period of occupancy when the lot housed families of middle or high socio-economic level groups. Those collections can contribute to testing the project research design, and refine our understanding of Wilmington in the pre-industrial period. The materials from the sheet midden are further discussed in the artifact analysis chapter.

As previously mentioned, the dividing line between the Market Street and Second Street lots roughly corresponded to the 510 east line (Figure 45). The five complete and one partial five foot squares excavated on this lot also exposed an extensive sheet midden that accumulated as the result of long term trash deposition. The sheet midden on the Second Street lot did contain a few identifiable early nineteenth century artifacts, but the majority of the dateable items are assignable to a date range of ca. 1750 to ca. 1800. The overall mean ceramic date for that stratum was 1782. This lot most likely began to receive trash soon after the property was divided in 1747, and deposition of material ceased during the first quarter of the nineteenth century.

The sheet midden stratum was capped by a layer of mottled grey and tan clay. A brick walkway was laid over that deposit on portions of the lot (Figure 45).

The Second Street lot contained the remnants of a looted barrel lined privy that had been noted by MAAR during the testing phase. The MAAR report (Thomas et al. 1980:III-70) described the privy in the following manner:

> The staff exposed granite walls of various stages of construction as well as a brick patio leading to various backyard functions. The brick patio was in excellent shape. Within the backyard at least one privy was located. It had been collected by the bottle collectors. The collectors, however, turned over the contents of this feature and gave us a very good picture of the early date of this feature. The date range of this privy (Feature No. 2) was probably between 1740 and 1790, our oldest excavated unit. The backfill was cleaned out of the feature and was water screened.
>
> The construction of the privy was made of hogshead barrels, one on top of the other (Fig III-44). Some materials were still <u>in situ</u> along the bottom and sides of the feature.
>
> The materials recovered from this privy exceeded 1,800 in number. The highest proportion of these are kitchen related materials, particularly ceramics and bottle glass (Fig III-46). An unusual amount of musket balls and gunflints were also recovered. The patterning of functional groups may support the 1740-1790 date assigned to this feature. Similar patterning was discerned in mid eighteenth century privy contexts in Philadelphia (Basalik and McCarthy 1979). This study suggests that the high percentage of kitchen related material decreases through time, approaching 70 percent by the turn of the nineteenth century.

The SSI staff calculated a mean ceramic date of 1783.7 for the combined ceramics from this feature, which indicates that the feature dated slightly later than suggested in the MAAR report. The catalogue sheets for that feature were made available to SSI by MAAR, and the artifact data from that feature and from the sheet midden will be discussed in the artifact analysis chapter.

The only other substantive feature found on the Second Street lot was a concrete faced shaft topped with a square brick construction (Feature 8 - Figure 45). The configuration of this feature suggests privy, but all other privies found in Wilmington (and every other place currently known) lack a concrete liner. Concrete liners are often found within cisterns, but the shaft was far too small to have served that function. Further, information gained from bottle hunters indicates that the shaft had been filled with modern debris.

The collections extracted from the Market and Second Street lots form excellent collections for study of high socio-economic level households from Wilmington's pre-industrial period. Those collections will be featured in the Analysis chapter as major tests of the project research hypotheses.

Area F: Backhoe Trenching

Area F consists of four backhoe trenches (A-D) oriented roughly grid north-south within the Market to King Street block (Figure 41). Those trenches replaced auger tests planned for that block, and the purpose of the trenches was to confirm resource distributions within the block.

Trench A was placed along the 455 east grid line, and began at the northern property boundary. That trench segment was extended south for approximately 60 feet, and crossed utility trenches and cellars filled with select fill. The trench location was then moved (Figure 41) to the 470 east line in an attempt to avoid disturbed contexts. That segment was extended approximately 70 feet, to within approximately 40 feet of Front Street. The only intact deposit found in this trench was the cistern/privy, i.e. Feature 1 within Area D, discussed above.

The second trench, Trench B, was placed on the 515 east grid line and began at the 30 north grid line. Trench B was extended 65 feet and was excavated to original topsoil. Samples taken from this topsoil produced a mean ceramic date of 1790.3, and the topsoil development in Trench B appears to parallel, but date slightly later than that noted for, Area E. A discontinuous occupation level was noted in sections of Trench B above the original topsoil, but an insufficient artifact sample was recovered to determine a mean ceramic date. A single feature, a brick-lined privy, was noted in Trench B. That feature had been cut in half by cellar construction, leaving the northern section intact. An auger test was placed in this feature and revealed that fecal material was present in the bottom and was capped by about two feet of tan clay. No attempt was made to excavate this feature.

Trench C (Figure 41) was placed along the 535 east grid line and was excavated from the 75 north to the 30 south grid line (Plate 12). Two occupation levels were found that were continuous along most of the trench. The lower

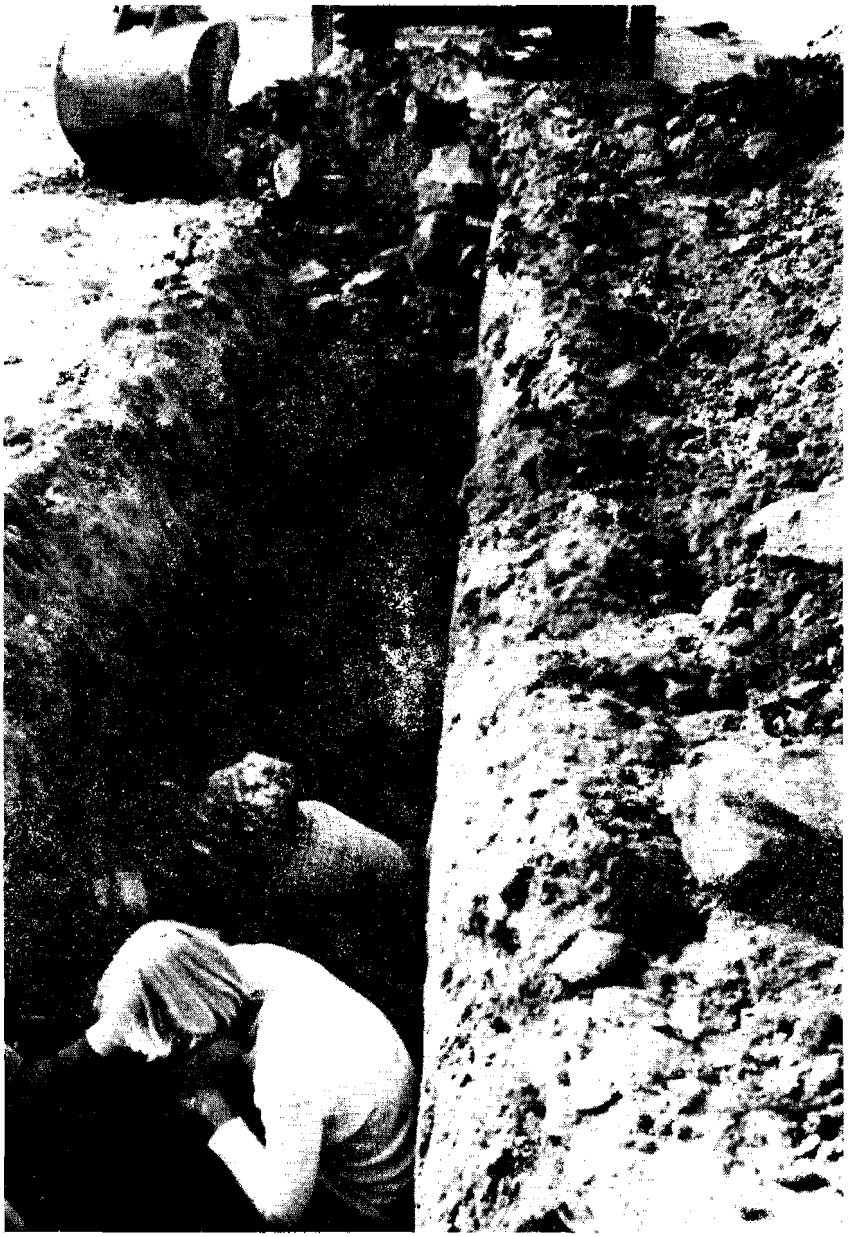


PLATE 12 – AREA E, BACKHOE TRENCHING

occupation level was defined as original topsoil, and ceramics from that level yielded a mean ceramic date of 1807. The upper occupation level was separated from the original topsoil by a deposit of fill and yielded a mean ceramic date of 1838.7.

The last trench, Trench D, (Figure 41) was placed on the 565 east grid line and extended from the 75 north grid line to the 25 south grid line. The purpose of this trench was to cross-cut the backyards of structures that faced Milner's Alley. Again, the trenching revealed two occupation levels. The lowest level yielded a mean ceramic date of 1813.8, and the upper level a date of 1842.6.

Historical data available on the Market to King Street block indicated that the earliest development took place on the western half of the block, with construction on the eastern half dating mainly to the nineteenth century. That developmental history was confirmed by the backhoe trenching.

Area G: Tatnall Street to West Street

The data requirements of the research design required that one lot be chosen from each block and be intensively studied. An attempt was made, therefore, to identify a lot within the Tatnall to West Street block that still contained preserved archaeological remains and reflected the required span of historic occupation.

Examination of the Ferris Map of 1736 revealed that a structure was present on a lot at the southeast corner of the block, in that year. This lot (Figure 48) was selected for investigation based on its early occupancy, and it was expected to yield data on the following types of land uses:

1. eighteenth century middle to high socio-economic level residences, with some commercial properties; and

2. nineteenth century commercial properties.

Additional historical research on the block clarified the historic occupation sequence. The selected lot was apparently occupied by William Seal, a "yeoman", during the 1730s. There are a number of potential interpretations for the term "yeoman", but it probably related to an individual of lower socio-economic status than the wealthy entrepreneurs who occupied the other study blocks. It is known that other lots on the blocks were owned by small trademen and merchants during the eighteenth century, in addition to investors who lived in other areas of the city. The mixed character of this block continued until the third quarter of the nineteenth century, when the block became predominantly residential, with some minor commercial and rental properties. The residents through much of Wilmington's history fell generally within skilled occupation categories, but can be classified within the lower socio-economic level of Wilmington's society. The center and northwest quadrants of the block remained unoccupied until the end of the nineteenth century.

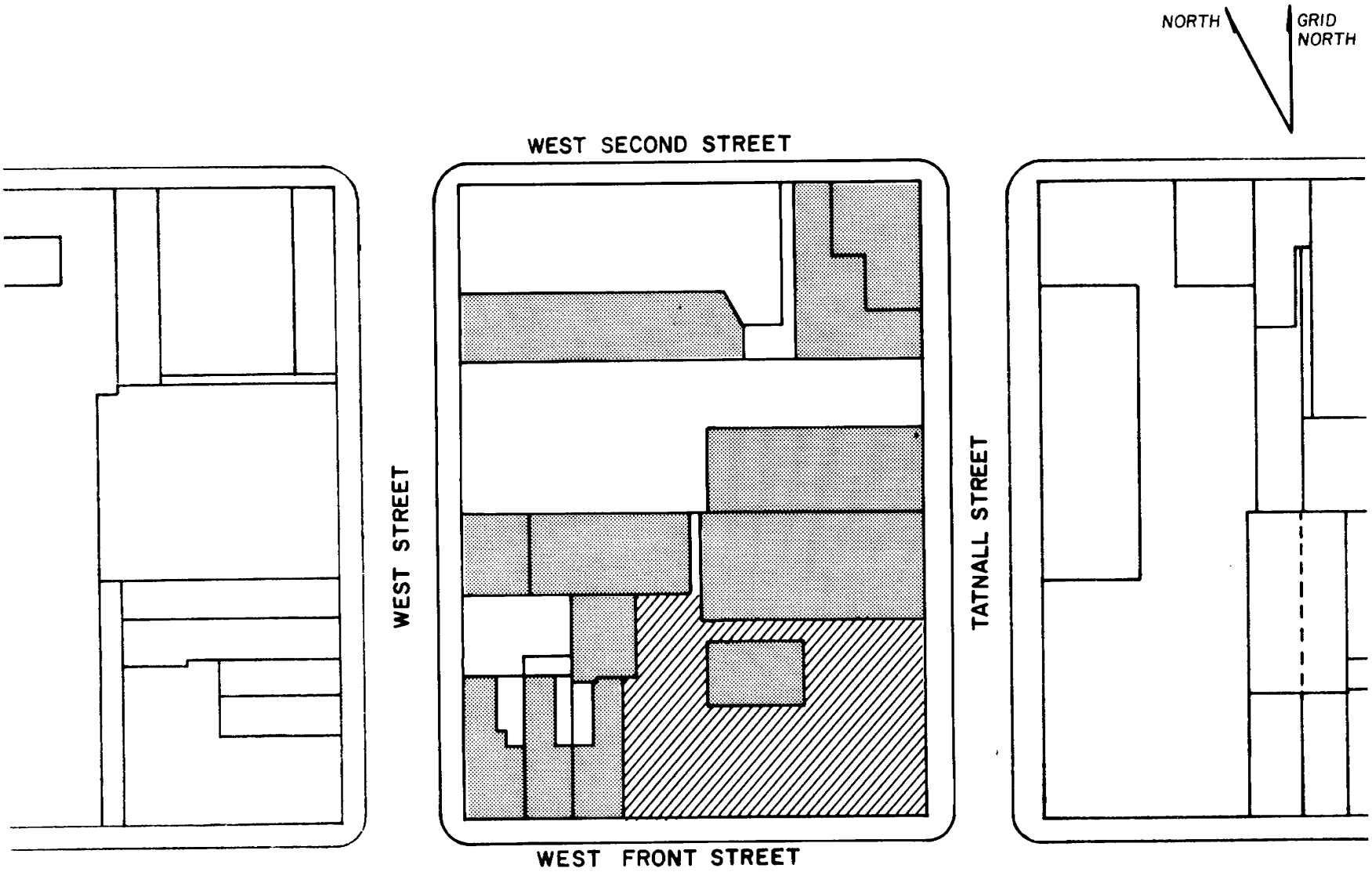


FIGURE 48
AREA G
STUDY LOT

Area G: Field Investigation

The MAAR report (Thomas et al 1980:IV-2) made the following recommendation for this block:

> Subsurface investigations in the West to Tatnall Street block revealed several foundations which illustrate, in part, phases in building construction. Artifactual remains are few in number on this block and the authors are not certain that further work will yield any additional information.

Unfortunately, that assessment proved to be correct.

The structures on the Tatnall to West Street block were demolished following the acquisition of the right-of-way in 1976. The entire block was covered with select fill following demolition and was overgrown with weeds at the time of the archaeological investigation. The investigation began with the excavation of two backhoe trenches (Figure 49), which roughly paralleled Front Street. Those trenches were placed in an attempt to cross-cut original backyards. Trench A was extended from grid coordinate 50 south/360 west to 65 south/485 west. Since the trench encountered structural debris through that section, an offset segment was then placed along the 70 south grid line (Figure 49). The offset also encountered cellar holes filled with recent demolition debris. The second trench, Trench B (Figure 49), was placed along the 25 south grid line and was excavated for approximately 150 linear feet. Possible occupation levels were found in this trench, and associated artifacts dated those levels to the late nineteenth century. The occupation levels consisted of a combination of black ashy loam, brown clay, and orange-grey silty clay mixed with large amounts of coal ash (Figure 50).

The backhoe trenches failed to identify archaeological resources beyond the late nineteenth century occupation levels. Despite the negative return of those trenches, the decision was made to machine strip a section of the large lot at the corner of Tatnall and Front Streets in an attempt to identify features associated with the 1736 William Seal House. Approximately 2000 square feet (Figure 51) of surface area was stripped of select fill and demolition rubble and was then shovel shaved and examined for subsurface features. A number of anomalies (indicated in the field as features) were noted as a result of the stripping operation, but all proved to be disturbed or to be the product of oil seepage from the service station that had once stood on that lot. Further work on the Tatnall to West Street block was abandoned following the stripping operation.

This block failed to produce artifact collections from contexts that could be used to test the research hypotheses. The artifacts from this block will, therefore, not be discussed in the artifact analysis chapter.

Area H: West Street to Washington Street

Little information was available on Area H (Figure 2) prior to the SSI project, as that block had not been included in the MAAR testing program. The data requirements of the research hypotheses did require that a sample of

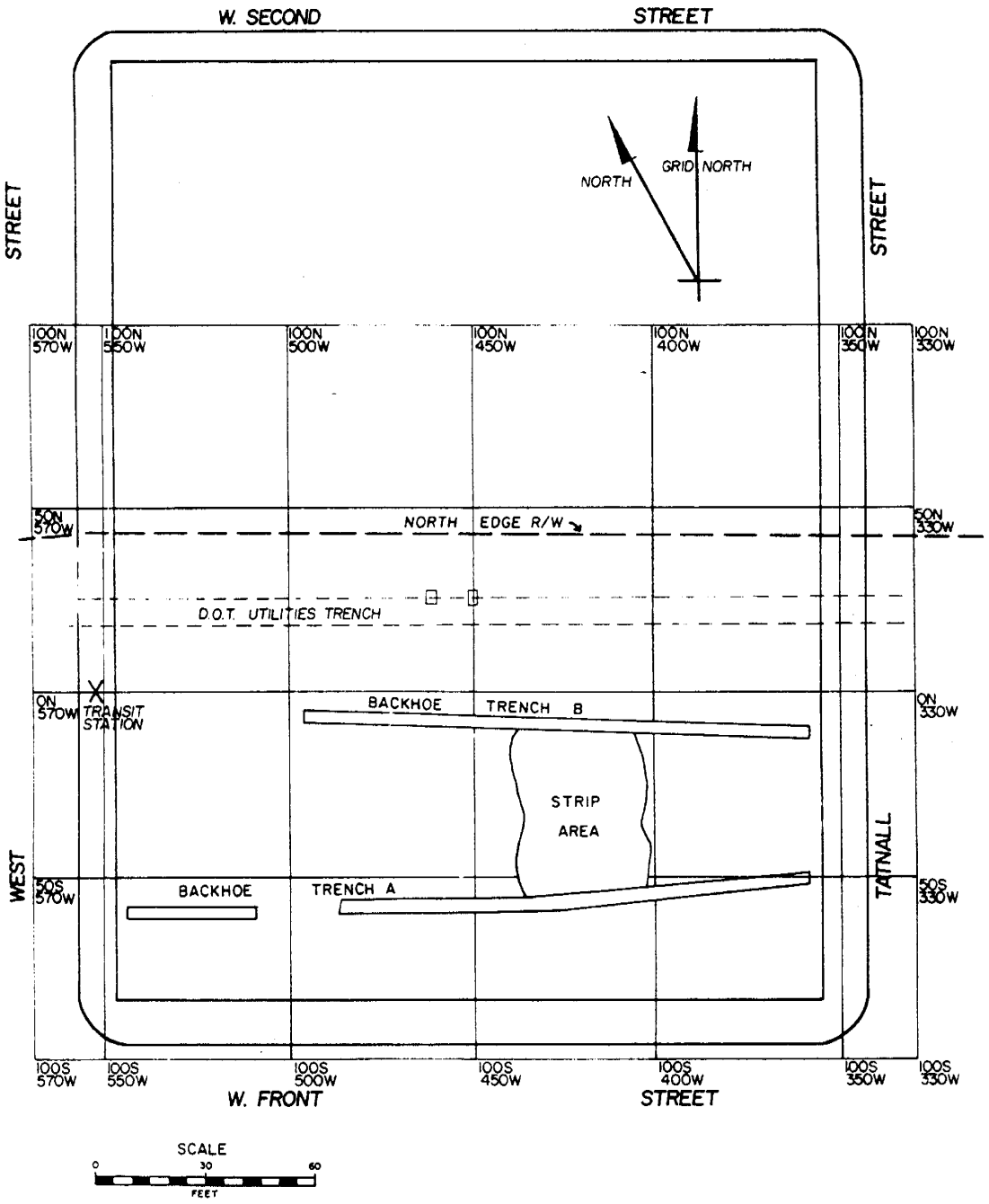


FIGURE 49
AREA G
TRENCH LOCATIONS
AND STRIP AREA

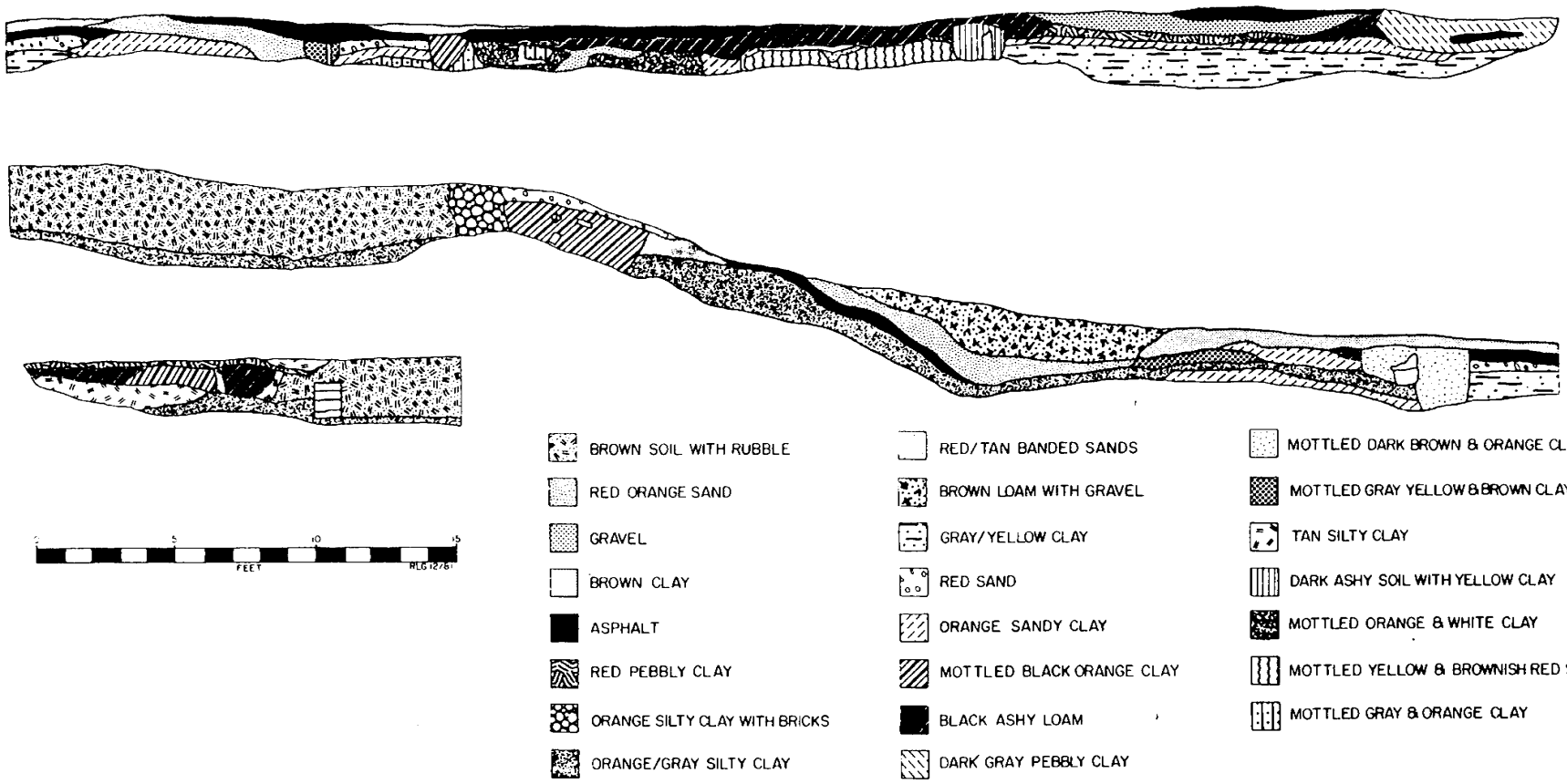


FIGURE 50
AREA G
BACKHOE TRENCH B
NORTH PROFILES

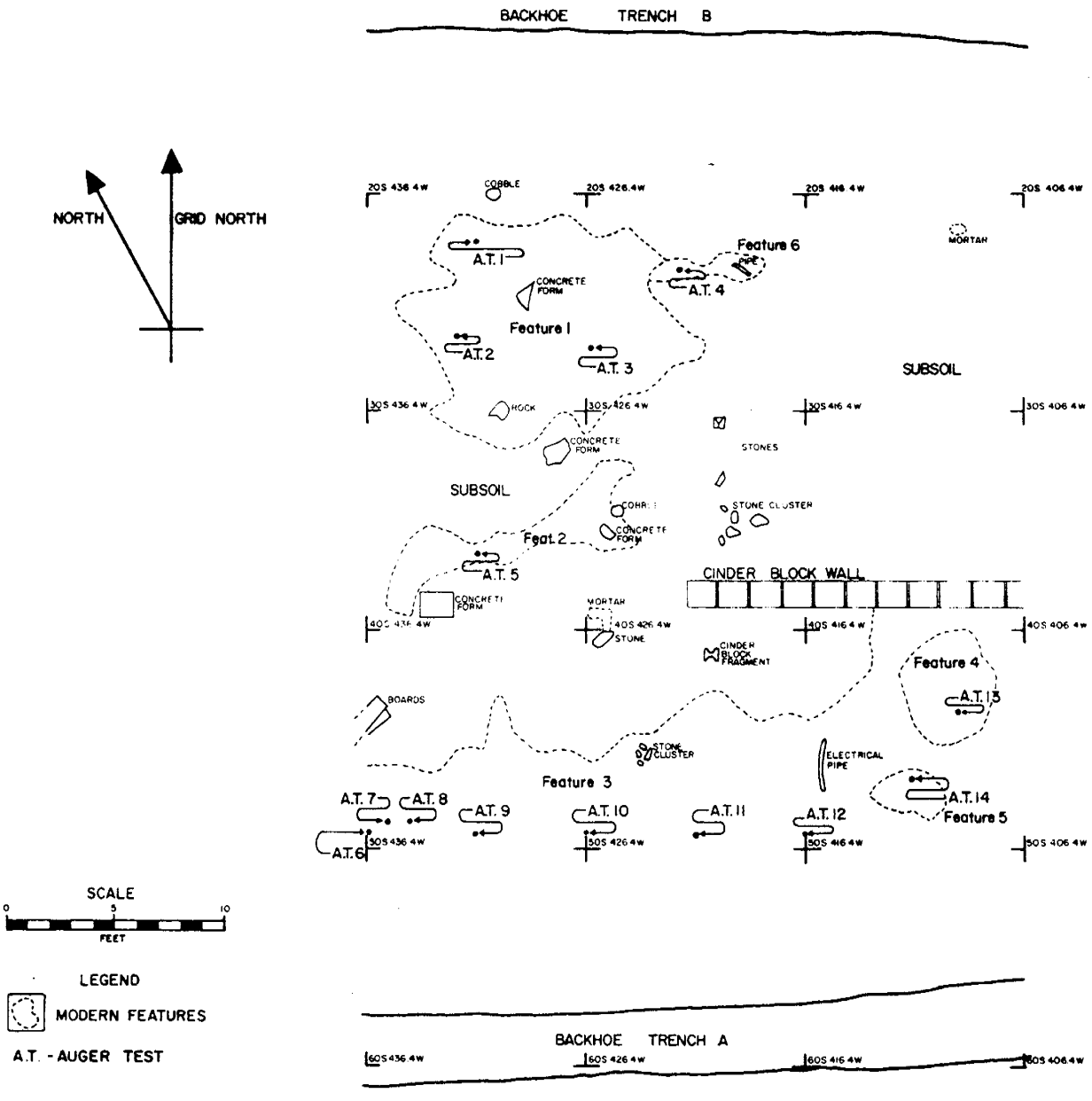


FIGURE 51
AREA G
STRIP AREA

one lot per block be selected for data recovery, and historical research was conducted on the block in advance of the testing and data recovery program.

Historical research indicated that properties facing West Street and Washington Street had been occupied by free blacks during the early nineteenth century. Further, the historical research revealed that the West Front Street lots had been renter occupied during the eighteenth century, although the racial or ethnic affiliations of the residents could not be determined. The period of black occupancy appears to have spanned the years from at least 1814 to 1845 on the West Front Street lots and into the 1830s along Washington Street. The remainder of the block was white occupied at that time. A tannery occupied the northwest quadrant of the block from around 1768 to no later than 1845. The character of the block remained mixed commercial and residential (mostly manual workers) during the second half of the nineteenth century.

It was anticipated that the investigation of Area H (Figure 52) would yield information on the following types of land uses:

1. eighteenth century renter occupied properties;

2. nineteenth century free black occupations; and

3. later nineteenth century mixed commercial and residential occupations.

The varied history of the Area H block was well-suited for testing the research hypotheses, and offered types of data not available elsewhere in the study area.

Area H: Archaeological Investigations

The buildings that had covered Area H were demolished following right-of-way acquisition in 1976. The block was covered with weeds at the time of the archaeological investigation, and surface features were further obscured by deposition of select fill. Also, scrap lumber had been dumped on the property, which had to be removed with heavy equipment prior to the investigation.

Archaeological investigation of Area H began with the excavation of four backhoe trenches (Figure 53). The southeast quadrant of the block was chosen for investigation, as that area had contained the greatest concentration of free blacks during the first half of the nineteenth century. Trenches A and B were placed parallel to West Street. Trench A was originally planned to cross-cut the section chosen for intensive excavation, but the trench was terminated when it hit a barrel privy. Three possible occupation levels were identified in this trench (a brown sandy clay, a dark brown soil, and a grey silty clay), and artifact samples were taken at ten foot intervals (Figure 54). The second trench parallel to West Street (Trench B) failed to reveal intact cultural deposits.

The two remaining trenches were placed parallel to West Front Street (Figure 53). Those trenches, designated C and D, failed to reveal significant occupation levels or features and cross-cut deposits of fill and demolition rubble.

FIGURE 52
AREA H
STUDY LOTS

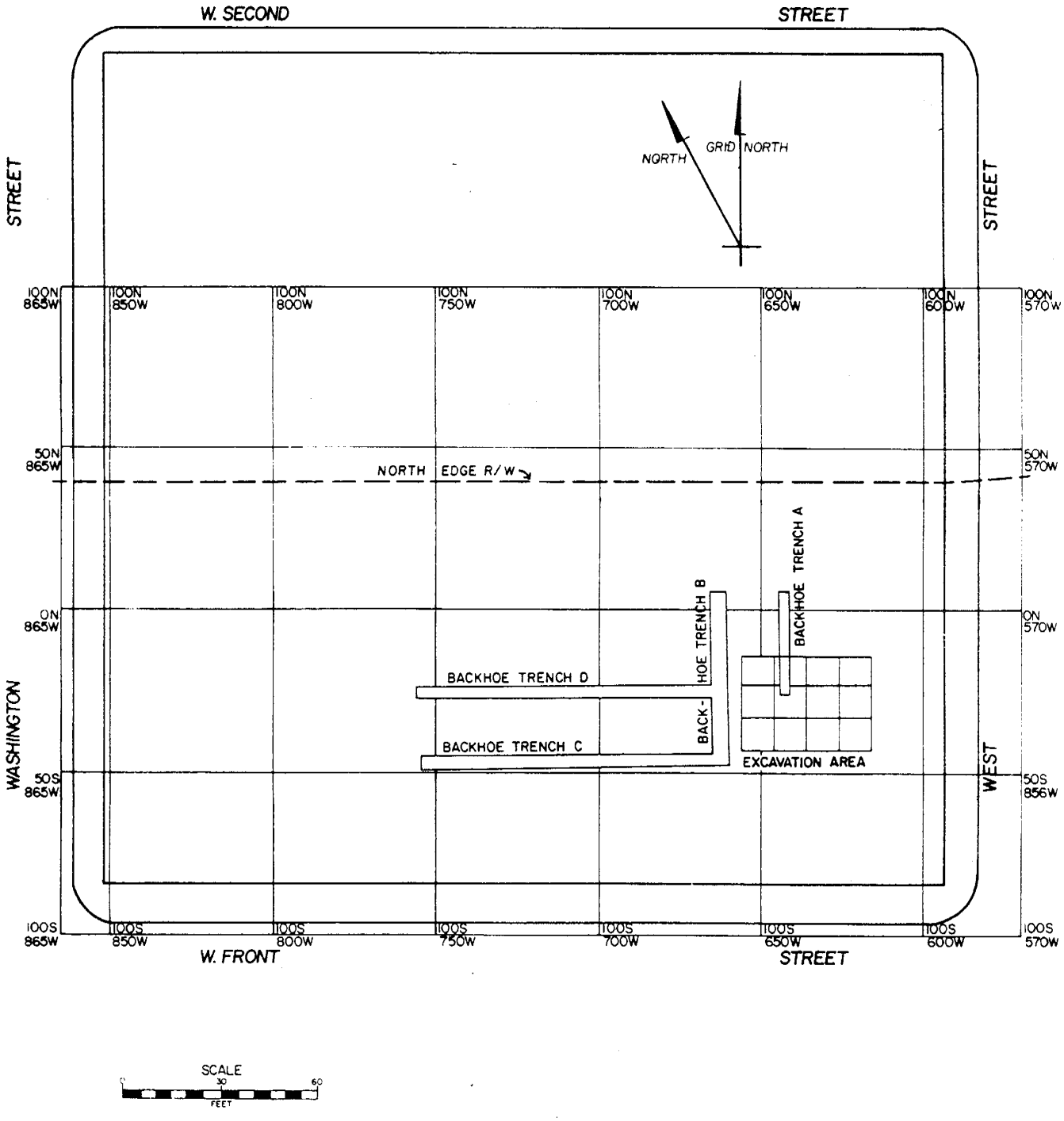
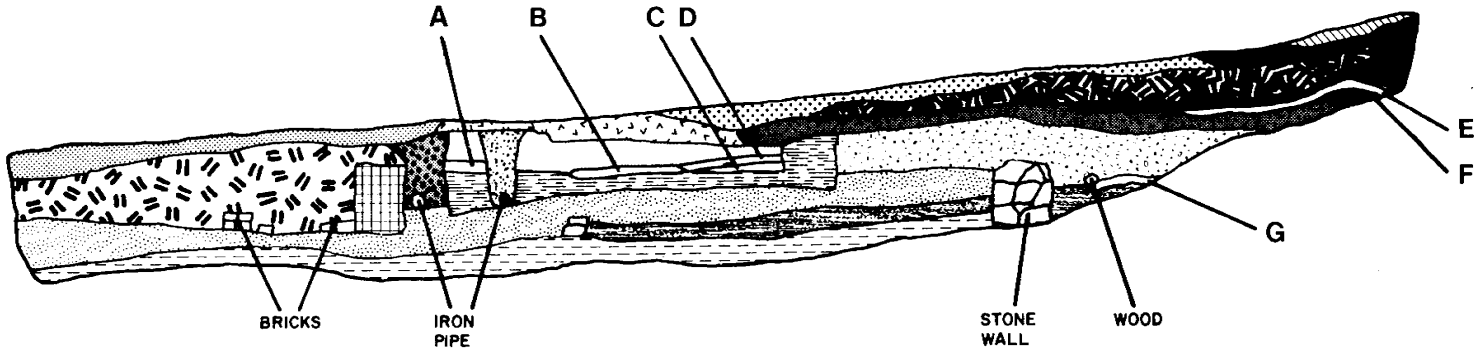


FIGURE 53

AREA H
LOCATION OF
BACKHOE TRENCHES AND
EXCAVATION AREA



- ORANGE SAND
- ASH AND RUBBLE FILL
- MOTTLED ORANGE GRAY SILTY CLAY
- GRAY SILTY CLAY
- CEMENT WALL WITH BRICKS MIXED IN
- DARK GRAY ASHY CLAY
- GRAY ASHY SOIL WITH RUBBLE
- BROWN-GRAY-ORANGE MOTTLED CLAY
- ORANGE SANDY CLAY
- BLACK ASHY SOIL MOTTLED WITH ORANGE-TAN CLAY
- BROWN CLAY WITH MORTAR
- BROWN SANDY CLAY
- BLACK SILTY SOIL
- BROWN SILTY SOIL
- BRICK RUBBLE
- DARK BROWN SOIL
- ORANGE-TAN FINELY MOTTLED CLAY
- ORANGE SANDY CLAY WITH PEBBLES

A GRAY ASHY SOIL
B BROWN ASHY CLAY
C ORANGE BROWN SAND
D WHITE COAL ASH
E BROWN ASHY SOIL
F LIGHT TAN SILTY CLAY
G BROWN SOIL

SCALE
0 5 10
FEET

FIGURE 54
AREA H
BACKHOE TRENCH A
WEST PROFILE

The Area H intensive excavations centered on what had been, prior to 1854, the northwestern portion of an "L" shaped lot fronting on both West Street and West Front Street. Prior to 1854, West Front Street was characterized by mixed commercial and residential properties, while West Street contained rental properties occupied by black laborers, until around 1845. After 1854, the "L" shaped lot was subdivided, placing Area H within the rear of properties fronting on West Street. At this time, West Street was occupied by white laborers and other manual workers.

Five ten foot by ten foot units were hand dug in this area in the hopes of finding evidence of the free black occupants along West Street. Excavation of the ten foot squares (Figures 53 and 55) revealed two occupation levels in the form of backyard middens (Table 13) (Plate 13). The middens were discontinuous, but each midden level occurred in units located in both backyards. The lower midden level (brown-black clay with organics) occurs in units 24 south/262 west, 44 south/646 west, and 44 south/626 west (Figures 56 and 57). The upper midden (various clay deposits) also occurs in units 24 south/626 west and 44 south/646 west, and continues in units 34 south/636 west and 24 south/646 west (Figure 56 and 57). The lower midden deposit yielded a mean ceramic date of 1807.9, while the upper midden deposit produced a mean ceramic date of 1840. Despite the presence of a proper chronological relationship between the two middens, it appears that both middens have suffered disturbances and some redistribution. An obvious erosion channel was found in unit 44 south/646 west (Figure 56), and study of the unit profiles indicated that considerable erosion and possible redistribution of the middens had occurred. Despite the evidence that was found that points to past disturbance of those middens, the decision was made to include the artifacts from the middens in the artifact analysis chapter. That decision was reached primarily because the middens appear to contain the only artifacts from Area H that might be attributable to the known free black occupation on the block.

Three barrel privies, numbered Features 1, 2, and 11, were encountered during the intensive investigation. The oldest privy (that is, the privy with the oldest fill) appears to have been Feature 2, which was located in the southwest corner of unit 34 south/635 west (Figure 55) (Plate 14). The top of Feature 2 was marked by a deposit of brick rubble in a shallow depression. The majority of the barrel was filled by a stratum of fecal material, ash, rubble, and a large concentration of artifacts. That stratum was divided into three six-inch vertical levels during excavation, and the lowest stratum yielded a mean ceramic date of 1851.88, with the middle and upper levels yielding respective dates of 1854.33 and 1860.33. Comparisons of cross-mends and other data indicate that the two lowest levels related to one occupation, while the upper level was the result of deposition by later occupants. The artifacts recovered from this feature will be discussed in detail in the Analysis chapter, but there is no doubt that those materials post-date the free black residency on the block.

The second barrel privy found in unit 34 south/636 west was designated Feature 1 (Figure 55) (Plate 14). That feature had been located during the backhoe excavation of Trench A (Figure 53) and had sustained some damage as a result of the method of discovery. That privy lacked a stratum of fecal material, but was filled with a homogeneous deposit of ash, cinders, clay, rubble, and artifacts. That deposit filled both the barrel and a rectangular

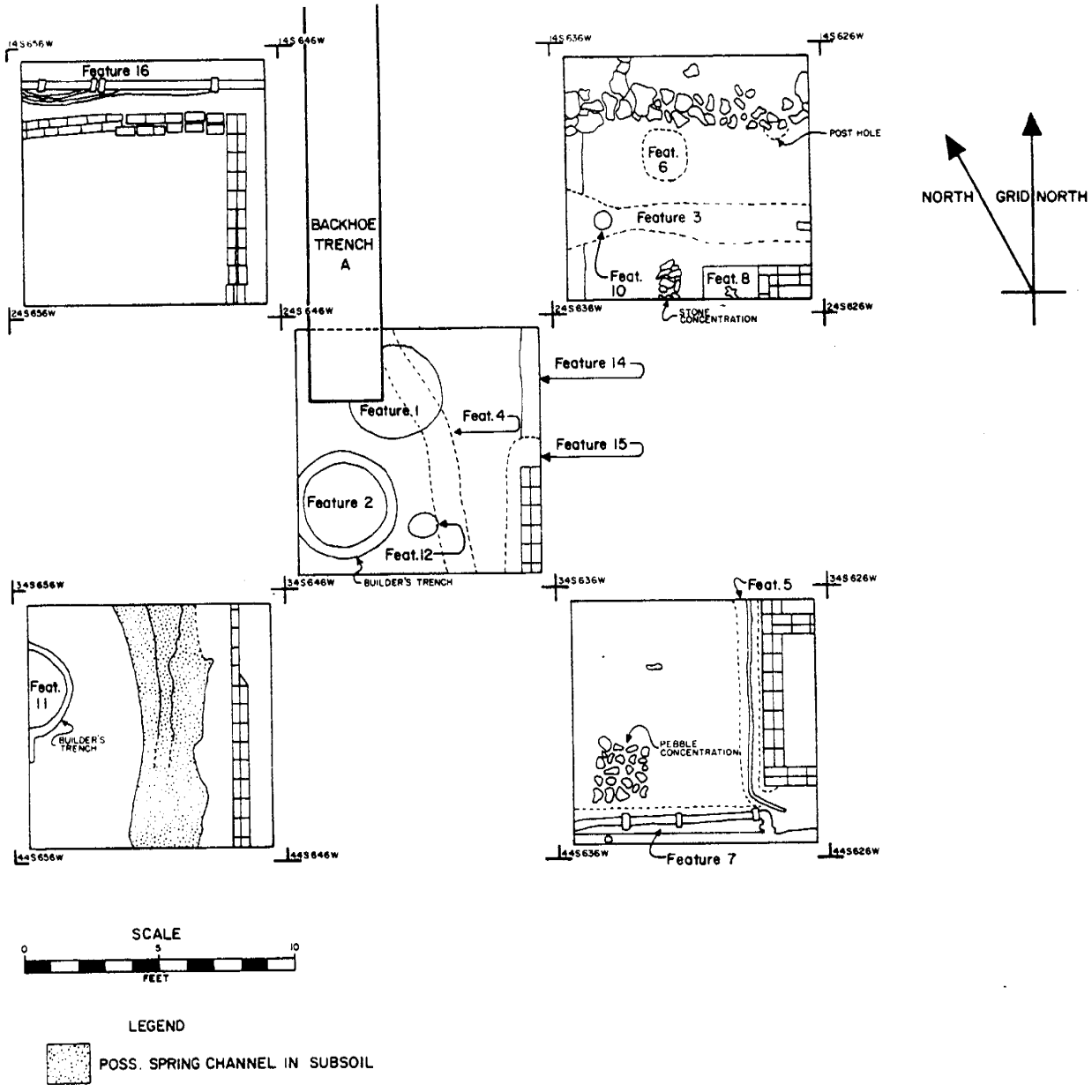


FIGURE 55

AREA H
EXCAVATION AREA
WITH FEATURE LOCATIONS

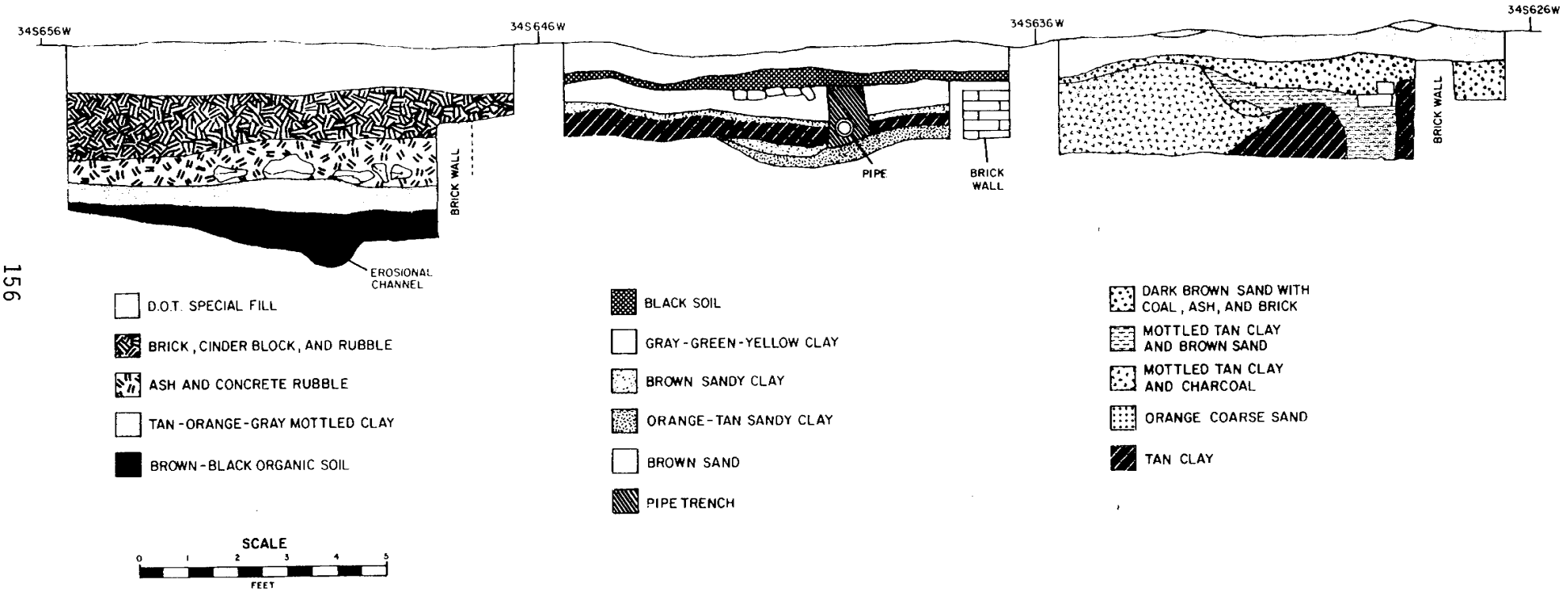


FIGURE 56
AREA H
34 SOUTH LINE,
NORTH PROFILE

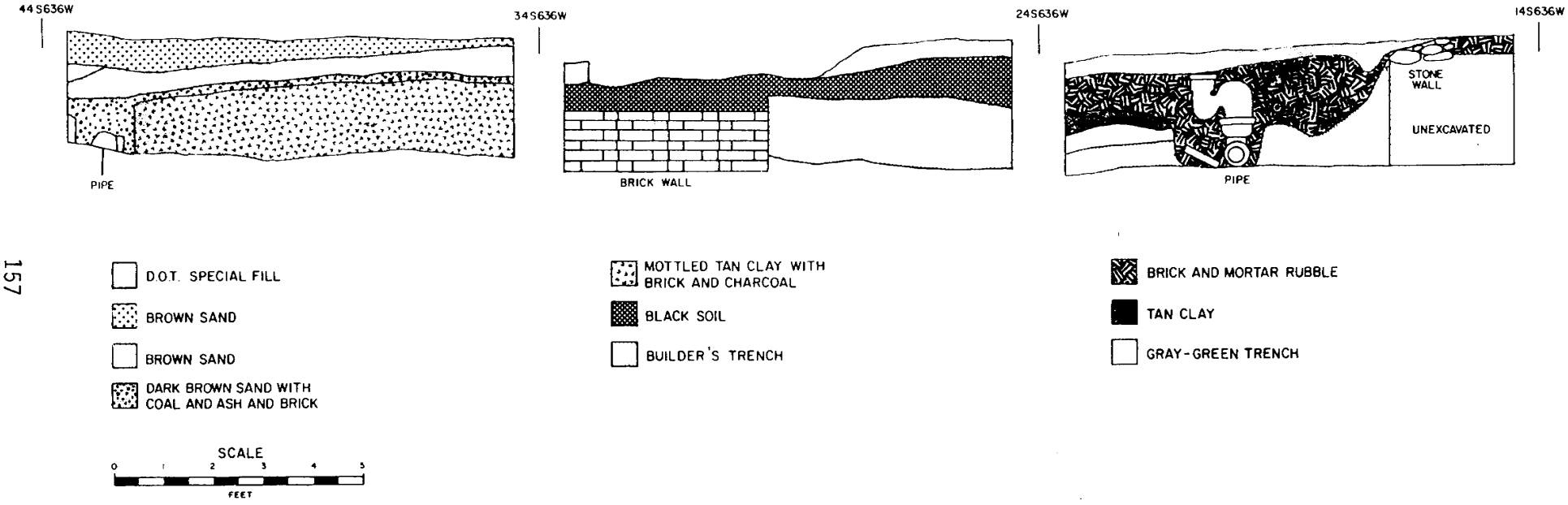


FIGURE 57
AREA H
636 W LINE,
WEST PROFILE

PLATE 13 - AREA H EXCAVATIONS

PLATE 14 - AREA H FEATURE NUMBERS 1 AND 2

TABLE 13. Area H Deposit Summary; Lowest to Highest Deposit

ER Number	Description	Interpretation and Stratigraphic Data	Mean Ceramic Date
H1D, H2F, 17	brown-black clay and organic soil	midden within lower original topsoil, occurs only in three excavation units: 24S/626W (ERH1) 44S/646W (ER2) and 44S/626W(ERH7)	1807.9
H1C, H2E, H3D, H3E, H8F	deposits of green-grey clay (H1C), tan-orange-brown-grey mottled clay (H2E) orange tan sandy clay (H3D) tan brown sandy clay (H3E) and light grey brown clay (H8F)	midden within upper topsoil deposits, occurs in four excavation units: 24S/626W (H1) 44S/646W (H2) 34S/636W (H3) and 24S/646W (H8) Deposits H1C and H8F not visible in profiles (Figures 56 and 57)	1840
Feature No. 11 ER17	barrel-lined privy with fecal deposit and artifacts	underlies upper original topsoil, fecal deposit contains secondary refuse, privy capped with orange clay containing displaced refuse	1858.7 for fecal deposit
H2A3, H2A4, H2A5, H3C1, H3C3	deposits of coal, ash cinders, clay, concrete	overlies upper topsoil	No Date
H3B, H7B	tan clay	fill contains displaced refuse	No Date
Feature No. 2 ERH11	barrel-lined privy with fecal deposit, ash rubble, capped by tan and grey mottled clay with coal and wood ash	intrusive into grey-tan clay, privy originates in clay level. ERH11A clay capping. ERH11B1, H11B2, and H11B3 are fecal deposits	H11B1= 1860.33 H11B2= 1854.33 H11B3= 1851.88

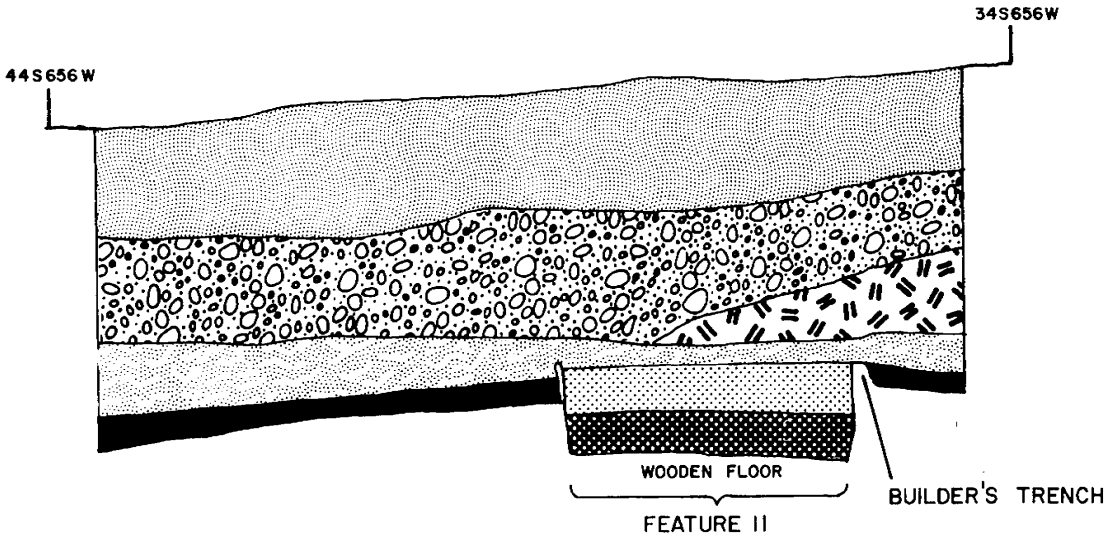
TABLE 13. Area H (continued)

ER Number	Description	Interpretation and Stratigraphic Data	Mean Ceramic Date
Feature No. 1 ERH4	barrel-lined privy with ash, cinders, clay, and rubble	intrusive into grey-tan clay deposit (ERH3B), contains possible secondary refuse	1860.79
H5, H6, H12, H13, H14, H9, H16	dark brown-black loam and grey clay, and mottled tan and grey clay within trenches	pipe trenches and builder's trenches and associated fill. intrusive into surface at which Features 1 and 2 originate	No Date
H1A, H3A, H7A, H2A1, H2A2, H8A, H23	black-brown sandy clay with rubble, ash, and shell	demolition refuse and rubble, overlies entire excavation area	No Date

depression above the barrel. A mean ceramic date of 1860.79 was achieved for this feature, although two coins - dated 1900 and 1913 - were also recovered. The coins were undoubtedly deposited as the result of either excavation of a pipe trench that intruded on the privy, or as a result of the disturbance of the backhoe trenching. Feature 1 will be discussed in the artifact analysis chapter.

The third barrel privy found in the intensive excavation was designated Feature 11 (Figures 55 and 58). That feature was found partially exposed in unit 44 south/646 west and was excavated in half section. The deposit in the privy consisted of a lower stratum of fecal matter and artifacts capped by an upper level of mottled orange clay. The lower stratum yielded a mean ceramic date of 1858.7, which places the abandonment of this feature at around the same time as noted for Features 1 and 2. Feature 11 was overlain by a portion of the upper midden which yielded a mean ceramic date of 1840.01. The temporal inversion between the upper midden and Feature 11 was one of the primary factors noted in designating the upper midden as a disturbed context. The upper midden was apparently displaced and deposited over Feature 11 at some point after that privy had been capped.

The two midden deposits found within Area H were the only traces found that might be related to the free black occupation of the block. Those deposits will, for that reason, be included in the Analysis chapter. The three privies discussed in the previous paragraphs were the only significant



D.O.T. SPECIAL FILL

BRICK AND CINDER BLOCK RUBBLE

TAN-ORANGE-BROWN MOTTLED CLAY

ASH AND CONCRETE RUBBLE

BROWN-BLACK ORGANIC SOIL

ORANGE-TAN CLAY

BLACK ORGANIC FILL

0 1 2 3 4 5

FEET

FIGURE 58
AREA H
WEST PROFILE AT
UNIT 44S/646W, WITH
FEATURE NUMBER II

features found during the Area H excavation. All three privies date after free blacks moved from the block, and during the period in which the block was occupied by small commercial establishments and low socio-economic level residents.

Area I: Justison Street to Washington Street

The Justison to Washington Street block (Figure 2) was the last block to be developed in the project area. The block contained no improvements until the early nineteenth century. John Jones, who owned the entire block, divided it into small rental properties by 1825. Reuben Webb acquired the block in 1829, and sold the small parcels to individual landowners. The parcels reverted back to rental properties by 1845.

The block was inhabited by free blacks during the initial period when the parcels were maintained as rental properties. Most of the free black residents vacated prior to the reversion of the parcels to rental properties in 1845, and apparently the block was occupied by lower socio-economic level, white renters from 1845 to the 1870s. The earlier frame structures were replaced by brick residences by around 1885, and the properties within the block increased in value. The block continued to be divided into rental properties until the late nineteenth century, with the addition of some small commercial and industrial establishments.

It was anticipated that investigation of Area I (Figure 59) would yield information on the following types of land uses:

1. free black renters of presumably low socio-economic level, during the first half of the nineteenth century; and

2. low socio-economic level renters during the second half of the nineteenth century.

Unfortunately, the conditions found on the block precluded retrieving information on either residential episode.

Area I: Archaeological Investigations

Area I was the last area to be investigated during the Wilmington Boulevard fieldwork, with excavations conducted during January, 1981. The structures on this block had been demolished during the 1960s, and the block surface was covered with heavy undergrowth and demolition rubble. Extensive evidence of feature looting was present, with numerous backdirt piles lining an alley that split the block into north and south sections (Figures 60 and 61). The testing project conducted by MAAR (Thomas et al. 1980:III-2 to III-4) indicated that bottle hunters had looted one privy per lot and that a number of the privies had been constructed of multiple barrels. Further, the artifact analysis conducted by MAAR indicated that the fill of most of the looted privies had dated to the second half of the nineteenth century.

The SSI fieldwork on this block began with excavation of four backhoe trenches (Figure 61). Two trenches, A and B, paralleled Justison Street, while the remaining two, C and D, paralleled Front Street. Rubble-filled cellars

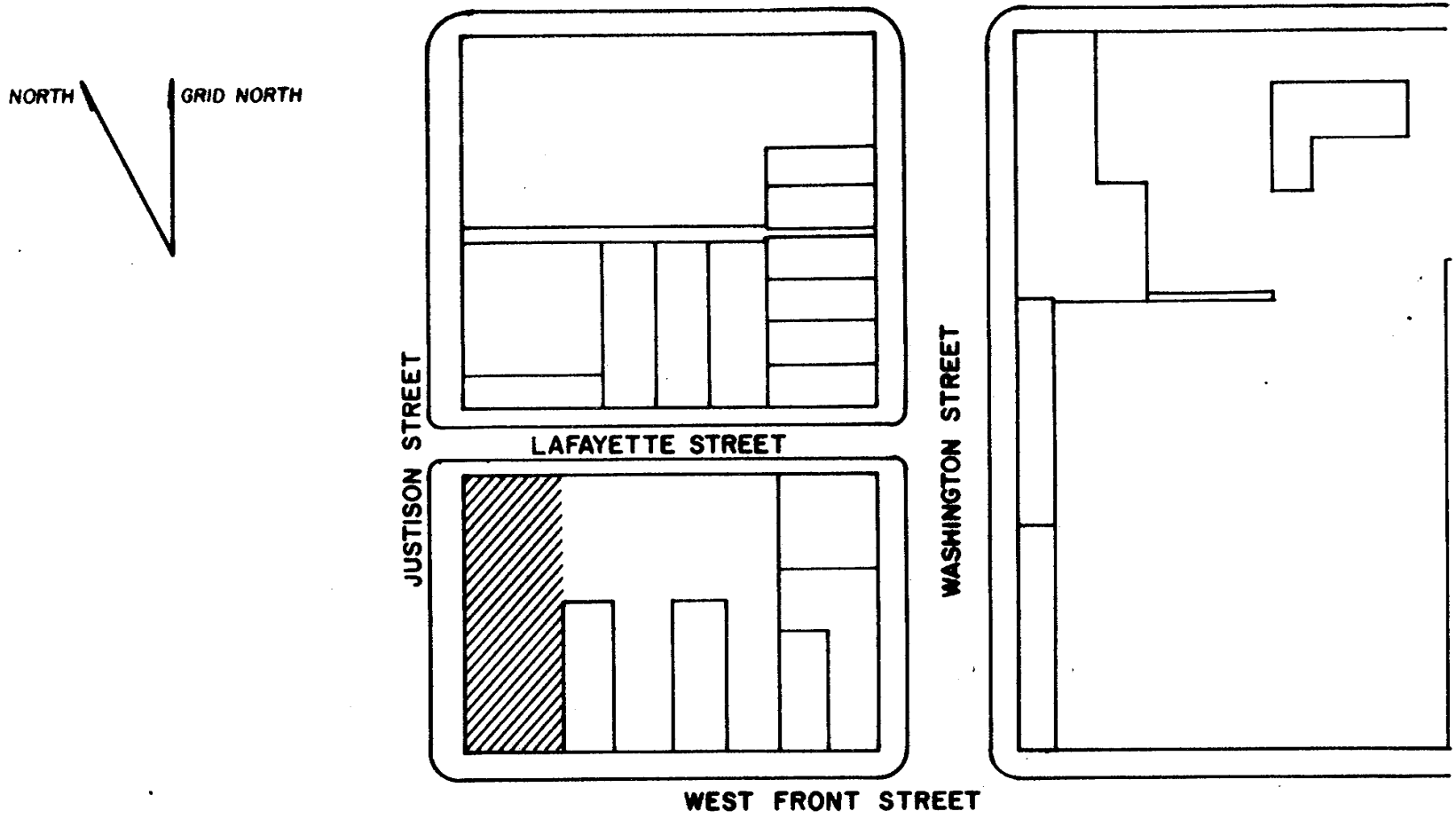


FIGURE 59
AREA I
STUDY LOTS

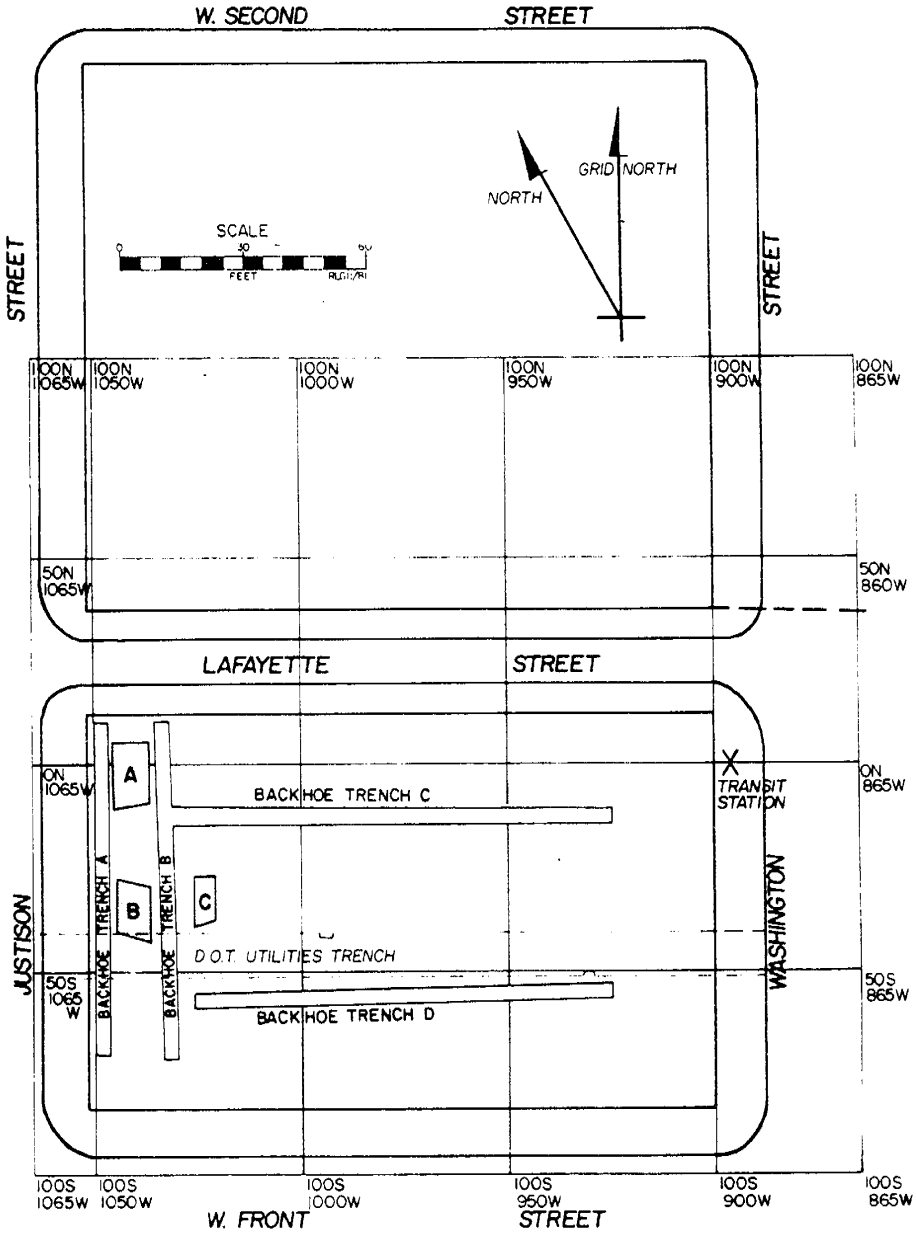


FIGURE 60
AREA I
BACKHOE TRENCHES
AND STRIP AREAS

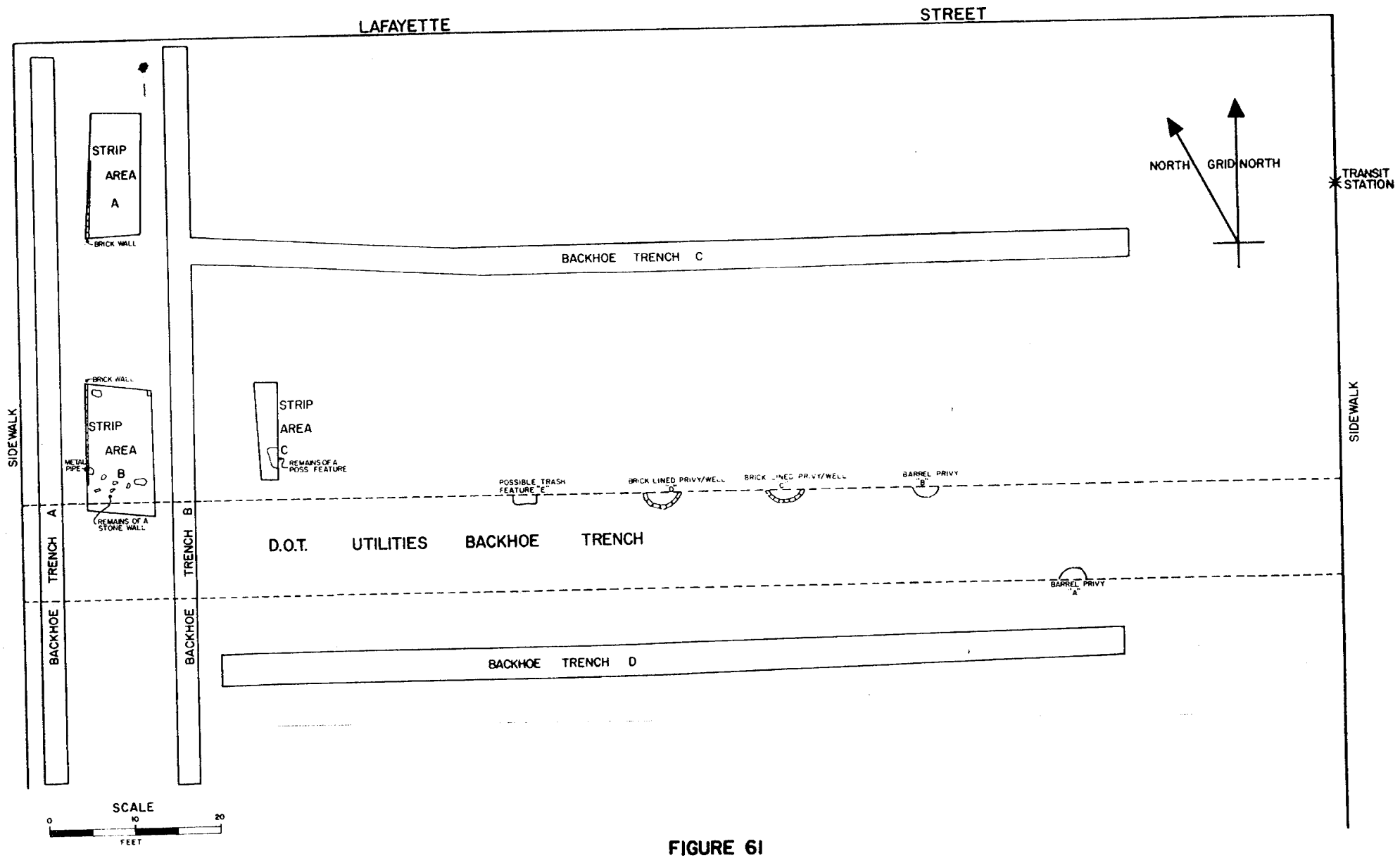


FIGURE 61
AREA I
CLOSE-UP VIEW OF
BACKHOE TRENCHES,
STRIP AREAS, AND
ROW OF LOOTED PRIVIES

were found in the trenches (Figure 62), while sections of Trenches B and C that cross-cut backyards failed to encounter either occupation levels or features. It was apparent, based on the backhoe results, that the original backyards had been severely impacted during the demolition activities and that any occupation levels present had been lost at that time.

Despite the negative results of the backhoe trenches, an attempt was made to identify intact archaeological deposits during intensive excavation. Small backyards associated with 100 to 106 Justison Street were mechanically stripped (Figure 61), exposing a single looted privy. No attempt was made to excavate that feature as it had been looted, and fieldwork was terminated at that point.

Summary of Field Investigations

SSI conducted a two phase archaeological investigation of the seven blocks in the Wilmington Boulevard project area. A series of backhoe trenches were placed within each block as part of Phase I. This trenching permitted the study of feature and deposit distributions within the seven blocks. Phase II was an intensive investigation of specific areas within the blocks, to recover data on lot land use and socio-economic characteristics over time. Phase II involved extensive hand excavations.

Phase I investigations provided important data on urban land use and assisted in the placement of the Phase II excavation areas. This first phase also demonstrated the types of data that can be obtained from backhoe trenching in an urban area. We learned that, in general, our placement of the trenches adequately sampled the blocks in terms of the presence and absence of deposits and features. For example, in Areas G and I, backhoe trench excavations revealed no intact, buried deposits. Subsequent mechanical stripping of these areas supported the backhoe evidence. Placement of trenches along the rear of lots revealed many wells, privies, and cisterns. Hand excavation of these areas confirmed the trench findings that such features usually occur along the rear property lines.

As a method for determining land use characteristics across a block, the trenching did provide data on feature and deposit locations within lots. In some cases, trenching also provided sufficient samples for deposit and feature dating, thus placing various sections of a block within a specific period of occupation. In almost all cases, dates from these trench samples coincided with known historic occupation dates. However, the samples taken from the trenches were often inadequate for dating. The samples were sometimes too small for determining a mean ceramic date. Also, the validity of the dates, when obtained, were in question. Not all of a feature was sampled, because portions were destroyed by the backhoe trench excavations. Thus, a systematic sample of a non-systematic sample was taken. In addition to dating difficulties, trenching provided no adequate means of determining the type of land use activity that took place within the lot in which the feature was located. The feature sample size was usually too small for conducting a pattern analysis, and thus determining possible land use. However, such problems were not encountered with the samples from the horizontal deposits revealed by the trenches. The ten foot interval sampling was

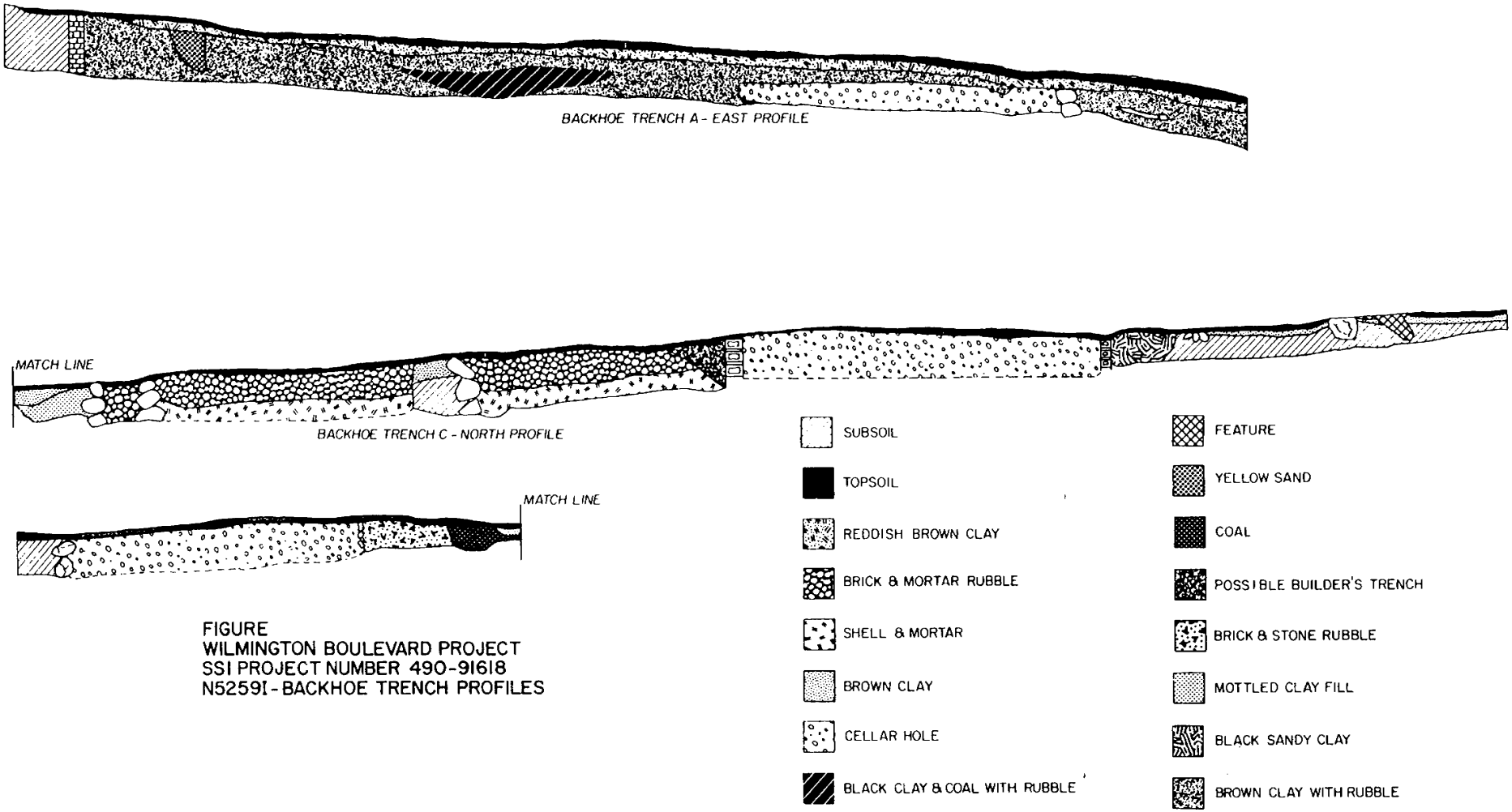


FIGURE
WILMINGTON BOULEVARD PROJECT
SSI PROJECT NUMBER 490-91618
N52591-BACKHOE TRENCH PROFILES

FIGURE 62
AREA I
PROFILES OF
BACKHOE TRENCHES

sufficient to date the exposed deposits, thus providing data on when areas of a block were occupied or used for trash disposal.

There is a dilemma in the use of backhoe trenches to sample both features and horizontal deposits. Trenching seems to be suitable for sampling horizontal deposits, but not features. The latter are usually partially destroyed by the backhoe trenching. One possible solution is to mechanically strip a narrow area where features are likely to occur, such as along rear property lines, and carefully uncover the tops of features. Once located, a feature can be either completely excavated or systematically sampled. A backhoe trench could then be placed immediately next to the stripped area and excavated to sample horizontal deposits, as such deposits would not be intact after a stripping operation.

Phase II of the field investigation involved the intensive excavation of five areas within the seven project blocks. Three of the seven blocks were not examined by intensive excavation due to the lack of intact, buried archaeological deposits. Table 14 lists blocks which did and did not receive intensive study. These intensive studies produced a wide range of deposits and features from several types of refuse contexts. Deposit types included original topsoil levels containing secondary refuse, occupation levels containing secondary refuse, and many fill deposits with displaced refuse. Feature types included barrel-lined and brick-lined privies, subsurface structures such as cellars, a possible spring house, and brick-lined cisterns. These features contained both secondary and displaced refuse deposits. The excavated deposits and features dated from both the pre-industrial and industrial periods of Wilmington's history, providing a good temporal sample for addressing the project research hypotheses.

TABLE 14. Project Area Blocks; Level of Investigation

Backhoe Trenching and Stripping Only	Backhoe Trenching and Intensive Excavation
Area C Shipley Street to Market Street	Area A Orange Street to Tatnall Street
Area G Tatnall Street to West Street	Area B Shipley Street to Orange Street
Area I Justison Street to Washington Street	Area D, E, and F Market Street to King Street
	Area H West Street to Washington Street